



# HEXAGON TRANSPORTATION CONSULTANTS, INC.



## Diamond Creek Villas Mixed-Use Development



Traffic Impact Analysis



Prepared for:

**City of Morgan Hill**



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## Executive Summary

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This report presents the results of the traffic impact analysis conducted for the proposed Diamond Creek Villas mixed-use development in Morgan Hill, California. The project site is located along the west side of Monterey Road between Vineyard Boulevard and Watsonville Road. Several retail buildings and a single-family residence currently occupy the project site. The project as proposed will consist of the replacement of all existing uses on the project site with 129 condominium/townhome units and 27,000 square feet of retail uses. A full-access entrance along Monterey Road directly opposite the California Department of Forestry Fire Station entrance will serve as the project's main access point (hereafter referred to as Project Entrance). Additionally, a right in and out only access driveway, located north of the main access driveway, would serve the residential portion of the project.

### Scope of Study

The purpose of the study is to identify the potential traffic impacts related to the proposed project. The potential impacts related to the proposed development were evaluated following the standards and methodologies set forth by the City of Morgan Hill and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP).

The study includes an analysis of AM and PM peak-hour traffic conditions for seven signalized intersections. The study intersections were selected based upon the estimated number of project trips through the intersection (10 or more trips per lane per hour). The study also includes a site access analysis, which includes levels of service analysis, signal warrant analysis, site distance analysis, and vehicle-storage requirements at the proposed Project Entrance. Freeway level of service analysis was not performed since project trips on freeway segments would not be greater than one percent of the capacity of any segment.

Traffic conditions at all of the study intersections were analyzed for the weekday AM and PM peak hours. The weekday AM peak hour of traffic is generally between 7:00 and 9:00 AM and the weekday PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on a typical weekday.

### Project Trip Generation

Through empirical research, data have been collected that correlate to common land uses their propensity for producing traffic. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development.

Hexagon has prepared project trip estimates for the proposed project based on trip generation rates obtained from ITE's *Trip Generation*, Eighth Edition, 2008. Based on the ITE trip generation rates and



reductions for mixed-use development and pass-by-trips, it is estimated that the project would generate a total of 1,684 gross daily trips, with 66 trips (17 inbound and 49 outbound) occurring during the AM peak hour and 130 trips (75 inbound and 55 outbound) occurring during the PM peak hour. The total net project trips that would be added to the roadway network by the proposed project were estimated by subtracting the number of trips generated by the existing land uses on site from the total gross number of trips generated by the project. Based on the existing trip credits and reductions that were applied, the proposed project was estimated to generate a net additional 65 AM peak hour trips (17 inbound and 48 outbound) and 106 PM peak hour trips (68 inbound and 38 outbound).

## Project Impacts

### ***Intersection Level of Service Analysis***

The intersection level of service is summarized in Table ES1. The results of the intersection level of service analysis under project conditions show that no study intersections would be impacted by the project according to City of Morgan Hill level of service standards.

### ***Freeway Segment Analysis***

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP was not required.

## Other Transportation Issues

### ***Site Access***

A review of the project site plan was performed to determine if adequate site access is provided and to identify any access or circulation issues that should be improved. The site access analysis consists of an evaluation of levels of service, signal warrants, vehicular queues, and sight distance at the Project Entrance. This review is based on the site plan prepared by Development Process Consultants and MH Engineering, dated September 28, 2009. The site plan indicates that main access to the project site would be provided via a full-access intersection along Monterey Road, directly opposite the California Department of Forestry Fire Station entrance. A second residential access point would be provided north of the main access driveway, and it would consist of a right in and out only driveway.

The results of the site access analysis indicate that the Project Entrance will operate at LOS F conditions during the PM peak hour. However, the Project Entrance would not have traffic volumes under project conditions that meet thresholds that warrant signalization. According to the City of Morgan Hill level of service guidelines, a development is said to have a significant adverse impact on traffic conditions at an unsignalized intersection if for either peak hour the addition of project traffic causes the worst approach delay to degrade to LOS E or F **and** the traffic volumes at the intersection are sufficiently high to satisfy the peak hour volume warrants. Based on the City's impact criteria and signal warrant analysis results, the project is not required to signalize the Project Entrance.

Although the project is not required to signalize the Project Entrance intersection, based on the intersection level of service results, traffic from the minor approaches of the intersection are expected to experience long delays as they wait for a gap in traffic along the major roadway (Monterey Road) to complete their turn movement. Signalization of the Project Entrance intersection would improve overall intersection operating levels by minimizing delays from the Project Entrance and the California Department of Forestry driveway (minor approaches) in addition to making access to/from the minor approaches of the intersection more convenient. Level of service analysis indicates that with signalization,

the proposed Project Entrance would operate at LOS B or better during both peak hours under project conditions.

The evaluation of site distance at the proposed Project Entrance indicates that adequate sight distance is provided at the proposed Project Entrance location. An analysis of vehicular queues at the Project Entrance indicates that the existing left-turn storage capacity would be adequate to accommodate project traffic.

The City ultimately will determine the adequacy of the proposed driveways and on-site circulation plan.

### ***Transit, Pedestrian, and Bicycle Analysis***

The transit options in the immediate vicinity of the project site are limited, however enhancing the transit facilities may not be feasible based solely on ridership demands of the proposed project. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than four transit riders during the AM and PM peak hours.

There is no sidewalk along the project's frontage on Monterey Road. However, there is a sidewalk that terminates at the project's northern boundary. The project will result in an increase in demand on pedestrian facilities. Therefore, a sidewalk with connection to the existing sidewalk north of the project site should be constructed along the project's frontage to provide residents and visitors with a safe connection between the project site and other surrounding land uses in the area.

It is expected that bicycle trips would comprise no more than one percent of the total project-generated trips. Thus, the project could potentially generate no more than one new bicycle trip during each of the peak hours. Therefore, the demand generated by the proposed project would not justify the construction of new bicycle facilities. Though many roadways in the project area are not considered ideal routes for bicyclists due to the moderate to heavy traffic volumes, presence of on-street parking, and narrow travel area for bicyclists, bicyclists may nonetheless choose to use them for commuting and recreational purposes since they often provide the shortest route. Bicyclists should use the surrounding roadways with extreme caution.

## **Cumulative Impacts on Intersection Levels of Service**

The results of the study intersection level of service analysis under cumulative conditions indicate that all study intersections would operate within the City's level of service standards during each of the peak hours both without and with the project under Year 2015 conditions. The addition of project traffic to the study intersections would not result in a degradation of levels of service when compared to cumulative no project conditions. Therefore, the project would not have a cumulatively significant impact at the study intersections.

**Table ES 1**  
**Intersection Level of Service Summary**

Study Number	Intersection	Peak Hour	Count Date	Existing		Existing Plus Project				2015 Cumulative No Project		2015 Cumulative Plus Project			
				Avg. Delay <sup>1</sup>	LOS	Avg. Delay <sup>1</sup>	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C	Avg. Delay <sup>1</sup>	LOS	Avg. Delay <sup>1</sup>	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Monterey Road and Watsonville Road	AM	03/29/11	16.8	B	16.8	B	0.0	0.002	29.5	C	29.5	C	0.0	0.000
		PM	03/29/11	11.8	B	11.9	B	0.2	0.009	33.0	C	33.1	C	0.0	0.001
2	Monterey Road and Vineyard Boulevard	AM	03/30/11	26.6	C	26.5	C	0.3	0.021	25.8	C	25.8	C	0.0	0.009
		PM	03/30/11	38.6	D	38.9	D	0.4	0.026	35.9	D	36.2	D	0.5	0.026
3	Monterey Road and Tennant Avenue	AM	03/31/11	24.1	C	24.1	C	0.0	0.003	24.3	C	24.2	C	0.0	0.003
		PM	03/31/11	32.1	C	32.0	C	0.0	0.009	30.5	C	30.4	C	-0.1	0.005
4	Vineyard Boulevard and Tennant Avenue	AM	04/06/11	31.1	C	32.3	C	1.6	0.024	34.6	C	34.6	C	2.2	0.007
		PM	04/06/11	40.0	D	44.0	D	6.2	0.029	28.2	C	28.9	C	1.4	0.020
5	Butterfield Boulevard and Tennant Avenue	AM	04/05/11	22.7	C	22.6	C	0.0	0.003	35.2	D	35.4	D	0.0	0.001
		PM	04/05/11	26.8	C	26.9	C	0.1	0.012	38.8	D	39.0	D	0.4	0.011
6	US 101 Southbound Ramps and Tennant Avenue	AM	04/05/11	22.3	C	22.4	C	0.1	0.012	24.2	C	24.3	C	0.2	0.012
		PM	04/05/11	27.5	C	27.9	C	0.5	0.021	29.9	C	30.7	C	0.9	0.021
7	US 101 Northbound Ramps and Tennant Avenue	AM	04/06/11	21.4	C	21.5	C	0.0	0.001	23.1	C	23.1	C	0.0	0.001
		PM	04/06/11	19.6	B	19.7	B	0.0	0.003	21.1	C	21.2	C	0.0	0.003

<sup>1</sup>Intersection average control delay expressed in seconds.

**Table ES 2**  
**Site Access Analysis Summary**

	Peak Hour	Signal Warrant Analysis <sup>1</sup>	Intersection LOS Analysis <sup>2</sup>		Vehicular Queue Analysis <sup>3</sup>						Sight Distance Analysis <sup>5</sup>	
			Avg. Delay (sec.)	LOS	Northbound LT			Eastbound LT			Northbound Length (ft.)	Southbound Length (ft.)
					# of Vehicles	Length (ft.) <sup>4</sup>	Storage Avail. (ft.)	# of Vehicles	Length (ft.) <sup>4</sup>	Storage Avail. (ft.)		
Monterey Road and Project Entrance	AM	No	32.6	D	1	25	1,000	2	50	--	1,050	1,100
	PM	No	<b>68.2</b>	F	1	25	1,000	3	75	--	1,050	1,100

Notes:

<sup>1</sup> Signal warrant analysis based on the Peak Hour Signal Warrant #3, Figure 4C Caltrans MUTCD 2010 Edition.

<sup>2</sup> Worst case delay for unsignalized intersections based on HCM 2000 Operations Method using TRAFFIX software.

<sup>3</sup> Vehicle queue calculations based on movement delay for unsignalized operations.

<sup>4</sup> Assumes 25 feet per vehicle queued.

<sup>5</sup> Required sight distance for 45 mph on Monterey Road is 360 ft. based on the American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets, Exhibit 3-1.

**Bold** indicates unacceptable levels of service.

## 1. Introduction

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This report presents the results of the traffic impact analysis conducted for the proposed Diamond Creek Villas mixed-use development in Morgan Hill, California. The project site is located along the west side of Monterey Road between Vineyard Boulevard and Watsonville Road. The project site is currently occupied by several retail buildings and a single residence. The project as proposed will consist of the replacement of all existing uses on the project site with 129 condominium/townhome units and 27,000 square feet of retail uses. A full-access entrance along Monterey Road directly opposite the California Department of Forestry Fire Station entrance will serve as the project's main access point (hereafter referred to as Project Entrance). Additionally, a right in and out only access driveway, located north of the main access driveway, would serve the residential portion of the project. The project site location and the surrounding study area are shown on Figure 1. The project site plan is shown on Figure 2.

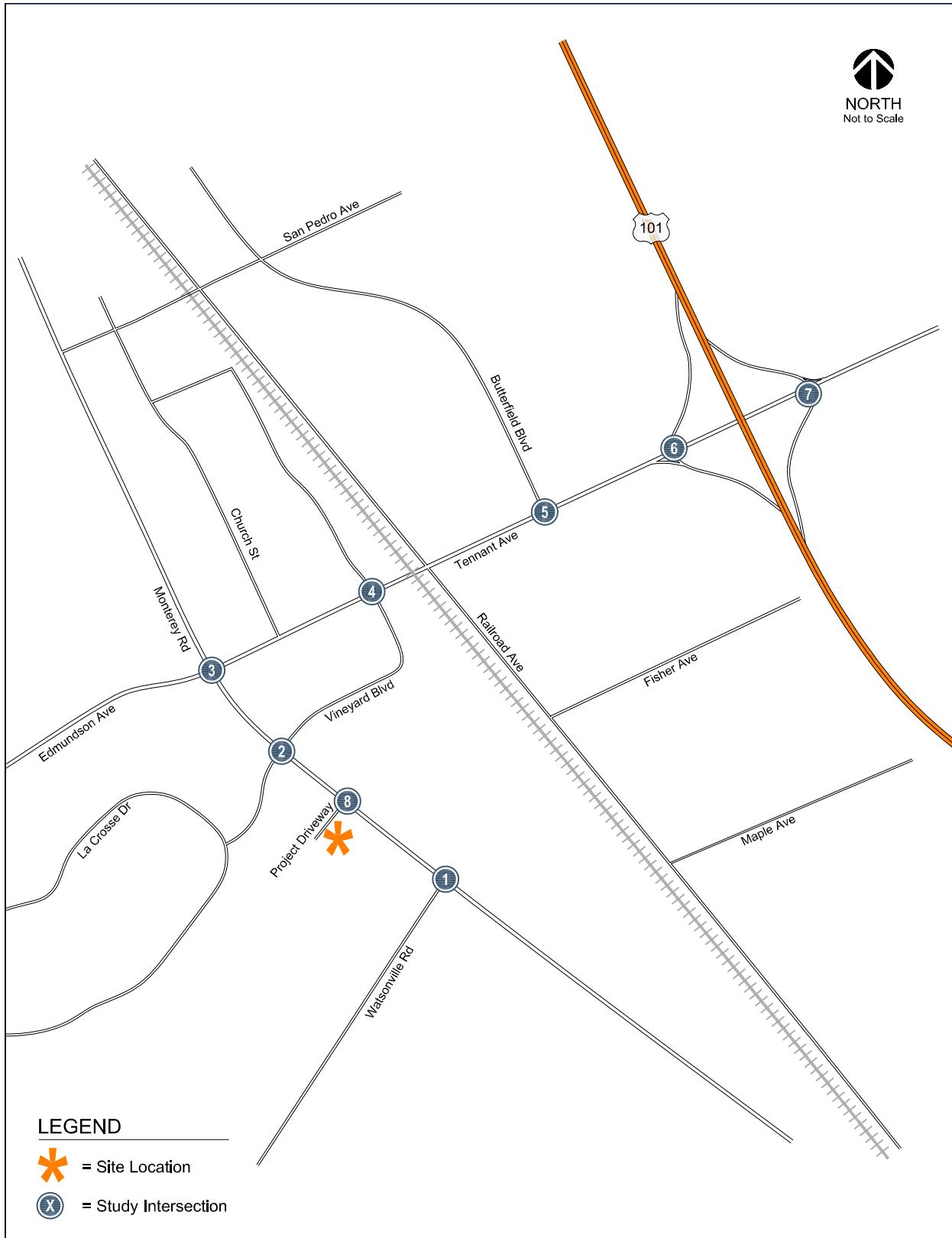
### Scope of Study

The potential impacts related to the proposed development were evaluated following the standards and methodologies set forth by the City of Morgan Hill and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP). The study included an analysis of AM and PM peak-hour traffic conditions for seven signalized intersections. The study also includes a site access analysis, which includes levels of service analysis, signal warrant analysis, site distance analysis, and vehicle-storage requirements at the proposed Project Entrance. An analysis of freeway segments was not performed because the proposed project will not add traffic equal to at least one percent of capacity of any freeway segment.

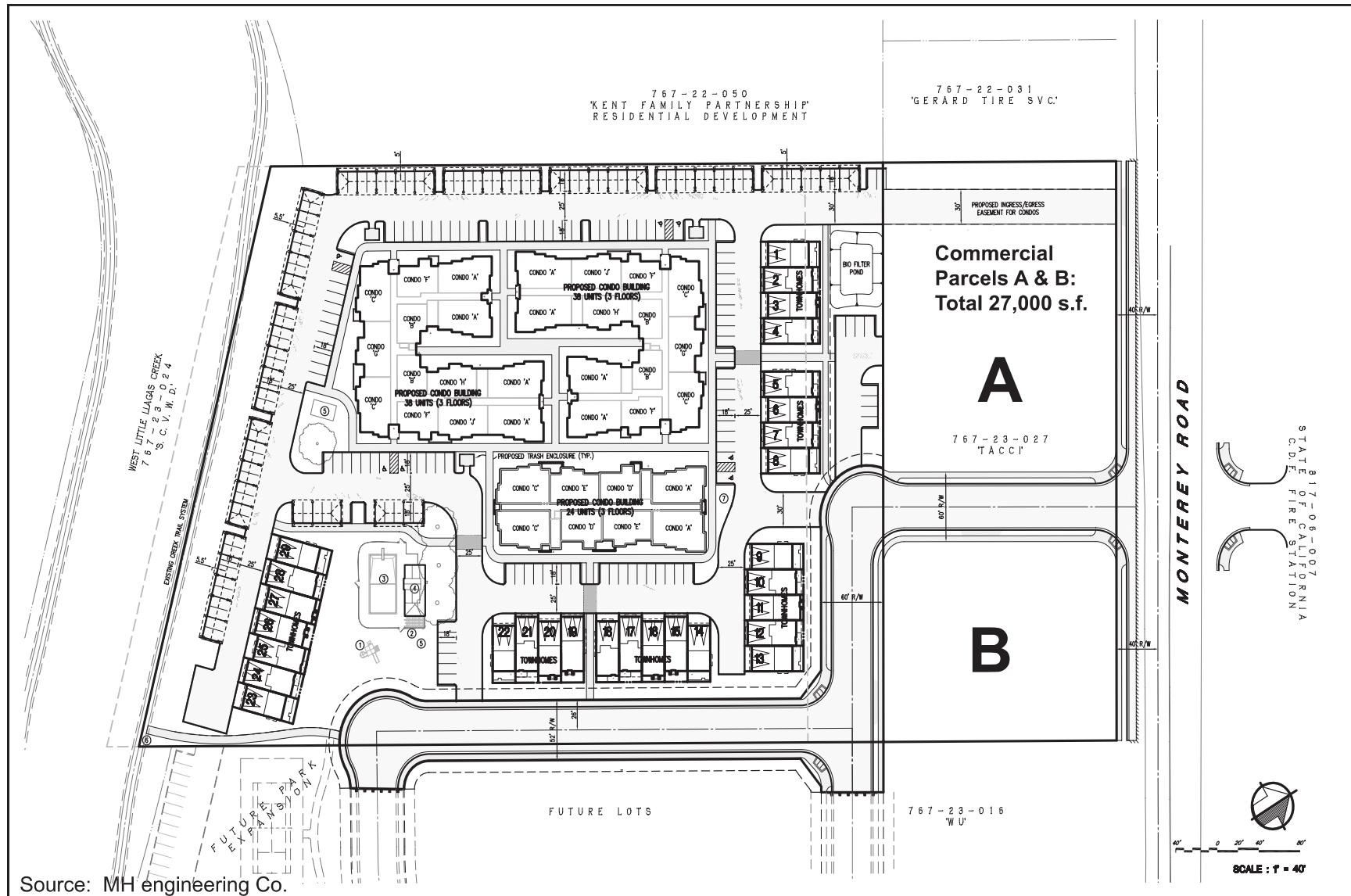
### *Study Intersections*

1. Monterey Road and Watsonville Road
2. Monterey Road and Vineyard Boulevard
3. Monterey Road and Tennant Avenue
4. Tennant Avenue and Vineyard Boulevard
5. Tennant Avenue and Butterfield Boulevard
6. Tennant Avenue and US 101 Southbound Ramps
7. Tennant Avenue and US 101 Northbound Ramps

Traffic conditions at all of the study intersections were analyzed for the weekday AM and PM peak hours. The weekday AM peak hour of traffic is generally between 7:00 and 9:00 AM and the weekday PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on a typical weekday. Traffic conditions were evaluated for the following scenarios:



**Figure 1**  
**Site Location and Study Intersections**

Figure 2  
Site Plan

- Scenario 1: *Existing Conditions.* Existing conditions were represented by existing peak-hour traffic volumes on the existing roadway network. Existing traffic volumes were obtained from recent traffic counts.
- Scenario 2: *Existing Plus Project Conditions.* Project-generated traffic volumes were added to existing traffic volumes to estimate existing plus project conditions. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.
- Scenario 3: *Year 2015 Cumulative Conditions.* Cumulative conditions represent Year 2015 future traffic volumes on the future transportation network. Cumulative conditions include traffic growth projected to occur in the Year 2015 with the addition of project traffic.

## Methodology

This section presents the methods used to determine the traffic conditions for each scenario described above. It includes descriptions of the data requirements, the analysis methodologies, and the applicable level of service standards.

### Data Requirements

The data required for the analysis were obtained from previous traffic studies, the City of Morgan Hill, and field observations. The following data were collected from these sources:

- existing traffic volumes
- lane configurations
- signal timing and phasing
- Year 2015 Traffic Forecasts

### Analysis Methodologies and Level of Service Standards

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

### Signalized Intersections

Signalized study intersections are subject to the City of Morgan Hill level of service standards. The City of Morgan Hill level of service methodology is TRAFFIX, which is based on the 2000 *Highway Capacity Manual* (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations based on average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersections level of service methodology, the City of Morgan Hill methodology employs the CMP defaults values for the analysis parameters. All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of the following:

- **LOS F** for Downtown intersections and segments including at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Street;
- **LOS E** for the following intersections and freeway zones:
  - Main Avenue and Del Monte Avenue
  - Main Avenue and Depot Street
  - Dunne Avenue and Del Monte Avenue
  - Dunne Avenue and Monterey Avenue
  - Dunne Avenue and Church Street

- Dunne Avenue and Depot Street
- Cochrane Road and Monterey Road
- Tennant Avenue and Monterey Road
- Tennant Avenue and Butterfield Boulevard
- Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane Road/DePaul Drive
- Dunne Avenue Freeway Zone: from Walnut Grove Drive/East Dunne Avenue to Condit Road/East Dunne Avenue
- Tennant Avenue Freeway Zone: from Butterfield Boulevard/Tennant Avenue to Condit Road/Tennant Avenue

The correlation between average delay and level of service for signalized intersections is shown in Table 1.

## Report Organization

The remainder of this report is divided into five chapters. Chapter 2 describes existing conditions in terms of the existing roadway network, transit service, and existing bicycle and pedestrian facilities. Chapter 3 presents the project impact on the transportation system and describes the recommended mitigation measures under existing plus project conditions. Chapter 4 presents the analysis of other transportation related issues, including site access and parking. Chapter 5 presents the traffic conditions in the study area under Year 2015 cumulative conditions without and with the addition of project traffic. Chapter 6 presents the conclusions of the traffic impact analysis.

**Table 1**  
**Signalized Intersection Level of Service Definitions Based on Control Delay**

Level of Service	Description	Average Control Delay Per Vehicle (Sec.)
<b>A</b>	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	Up to 10.0
<b>B</b>	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
<b>C</b>	Operation with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
<b>D</b>	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
<b>E</b>	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
<b>F</b>	Operations with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	Greater than 80.0

Source: Transportation Research Board, 2000 *Highway Capacity Manual*, (Washington, D.C., 2000)

## 2. **Existing Conditions**

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This chapter describes the existing conditions for all of the major transportation facilities in the vicinity of the site, including the roadway network, transit service, and bicycle and pedestrian facilities.

### **Existing Roadway Network**

Regional access to the project site is provided via US 101. This facility is described below.

*US 101* is an eight-lane freeway (three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction) north of Cochrane Road. South of Cochrane Road, US 101 is a six-lane freeway with no HOV lanes. Existing access to and from the project area is provided via an interchange at Tennant Avenue.

Local access to the site is provided by Tennant Avenue, Monterey Road, Vineyard Boulevard, and Watsonville Road. These roadways are described below.

*Tennant Avenue* is an east-west roadway that runs from Foothill Avenue, east of US 101, to Monterey Road. Tennant Avenue is a two-lane road between Foothill Avenue and US 101. West of US 101, Tennant Avenue widens to a four-lane divided roadway to Monterey Road with a posted speed limit of 40-mph. West of Monterey Road, the roadway narrows to two lanes and changes designation to Edmunson Avenue.

*Monterey Road* is a divided four-lane major arterial that runs directly through Morgan Hill. Monterey Road extends from Market Street in downtown San Jose, to US 101 south of the City of Gilroy. Monterey Road runs along the eastern boundary of the project site with a posted speed limit of 45-mph. Direct access to the project site is provided via a driveway along Monterey Road.

*Vineyard Boulevard* is a two-lane roadway between Mast Street and Monterey Road with a posted speed limit of 35-mph. West of Monterey Road the roadway widens to four lanes to its western terminus at La Crosse Drive.

*Watsonville Road* is a two-lane roadway that runs between Highway 152 and Monterey Road.

### **Existing Bicycle and Pedestrian Facilities**

There are several bike lanes and bike paths in the vicinity of the project site. Monterey Road has bike lanes along nearly its entire length within City of Morgan Hill limits, with the exception of the segment that runs through downtown between Dunne Avenue and Main Avenue. Bike lanes also are provided along Tennant Avenue between Monterey Road and US 101, Watsonville Road between Santa Teresa

Boulevard and La Arbolita Way, and the entire length of Butterfield Boulevard between Cochrane Road and Tennant Avenue. The existing bicycle facilities within the study area are shown on Figure 3.

Sidewalks are found intermittently along the extent of Monterey Road north of the project site. There are no sidewalks provided along the project's frontage or south of the project site along Monterey Road. Sidewalks are provided along Tennant Avenue between Butterfield Boulevard and Piazza Way. Sidewalks along Watsonville Road also are intermittent and provided only along development frontages. There are sidewalks provided along Vineyard Boulevard, west of Monterey Road and north of Tennant Avenue. However, sidewalks are not provided along Vineyard Boulevard between Tennant Avenue and Monterey Road.

## Existing Transit Service

Although very limited, existing transit service to the study area is provided by the VTA and Caltrain. The transit services are described below and shown on Figure 4.

The study area is only served directly by one local bus and two express buses.

**Local Route 68** operates on Monterey Road in the study area. It runs from the Gilroy Transit Center to the Diridon Transit Center in San Jose with 15-20 minute headways in the AM and PM peak hours. Route 68 operates between 4:00 AM and 11:30 PM. The nearest Route 68 stops to the project site are located near the intersections of Monterey Road and Vineyard Boulevard and Monterey Road and Watsonville Road.

**Express Route 121** operates on Monterey Road on its route between the Gilroy Transit Center and the Lockheed Martin Transit Center. It operates northbound with 30-minute headways during the AM peak hours and southbound with 30 to 55 minute headways during the PM peak hours. The nearest stop to the project site is located at the intersection of Monterey Road and Tennant Avenue.

**Express Route 168** operates on Monterey Road on its route between the Gilroy Transit Center and the San Jose Diridon Transit Center. It operates northbound with 30-minute headways during the AM peak hours and southbound with 30-minute headways during the PM peak hours. The nearest stop to the project site is located at the intersection of Monterey Road and Tennant Avenue.

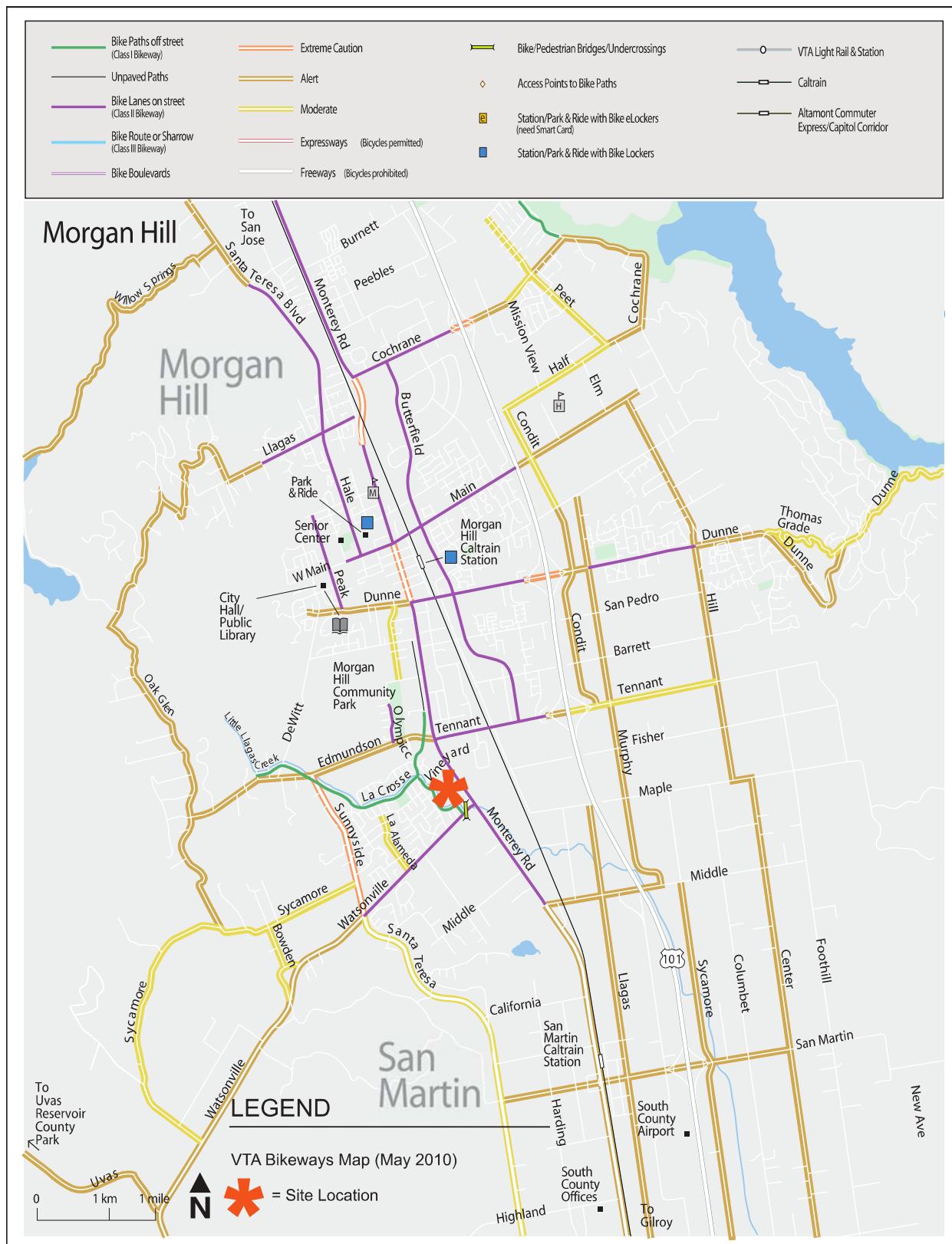
Commuter rail service between San Francisco and Gilroy is provided by Caltrain. The Morgan Hill Caltrain Station is located along the west side of Butterfield Boulevard between Dunne Avenue and Main Avenue, approximately two-miles from the project site. At the Morgan Hill Station, Caltrain provides service with approximately 30- to 40-minute headways during commute hours.

## Existing Intersection Lane Configurations

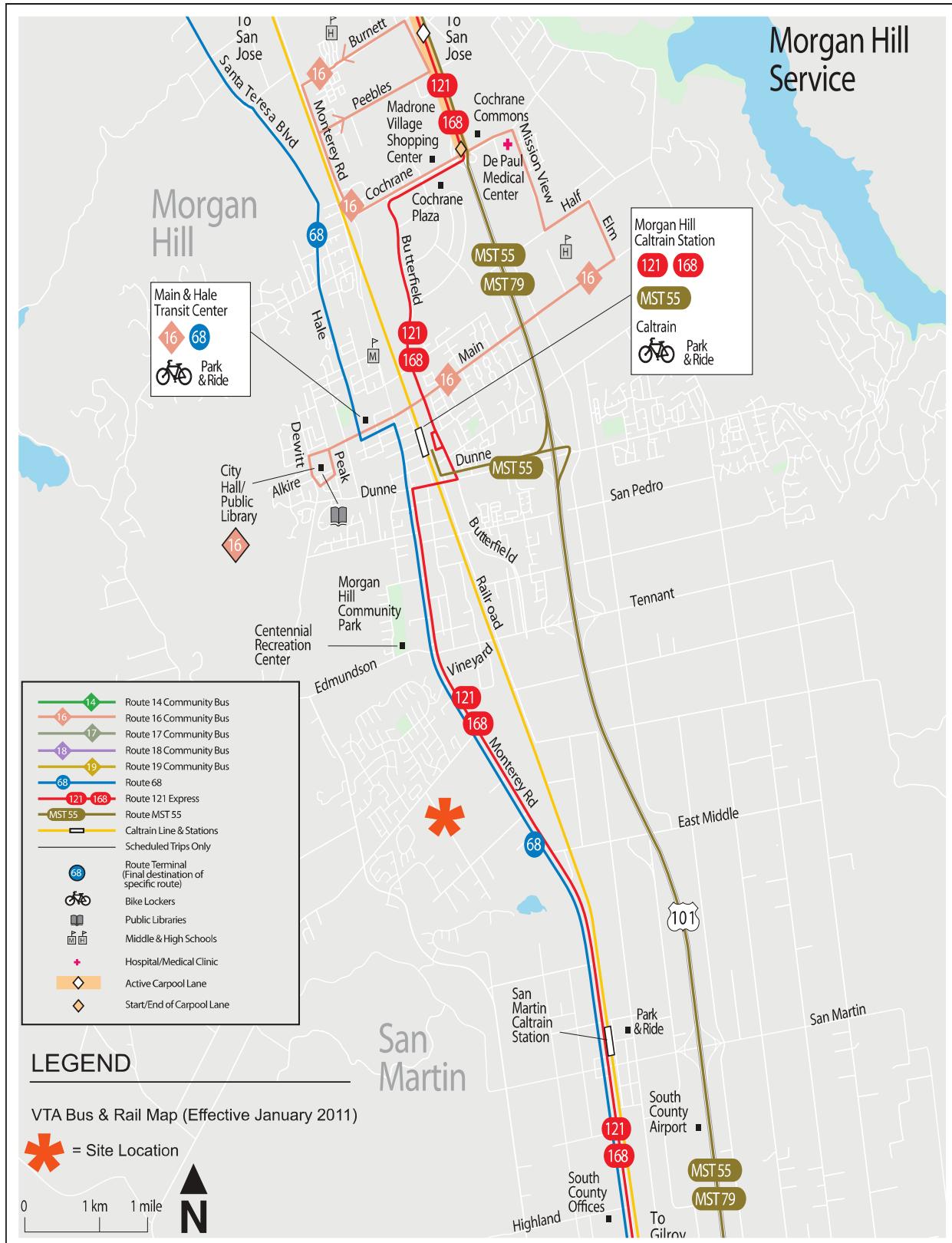
The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 5.

## Existing Traffic Volumes

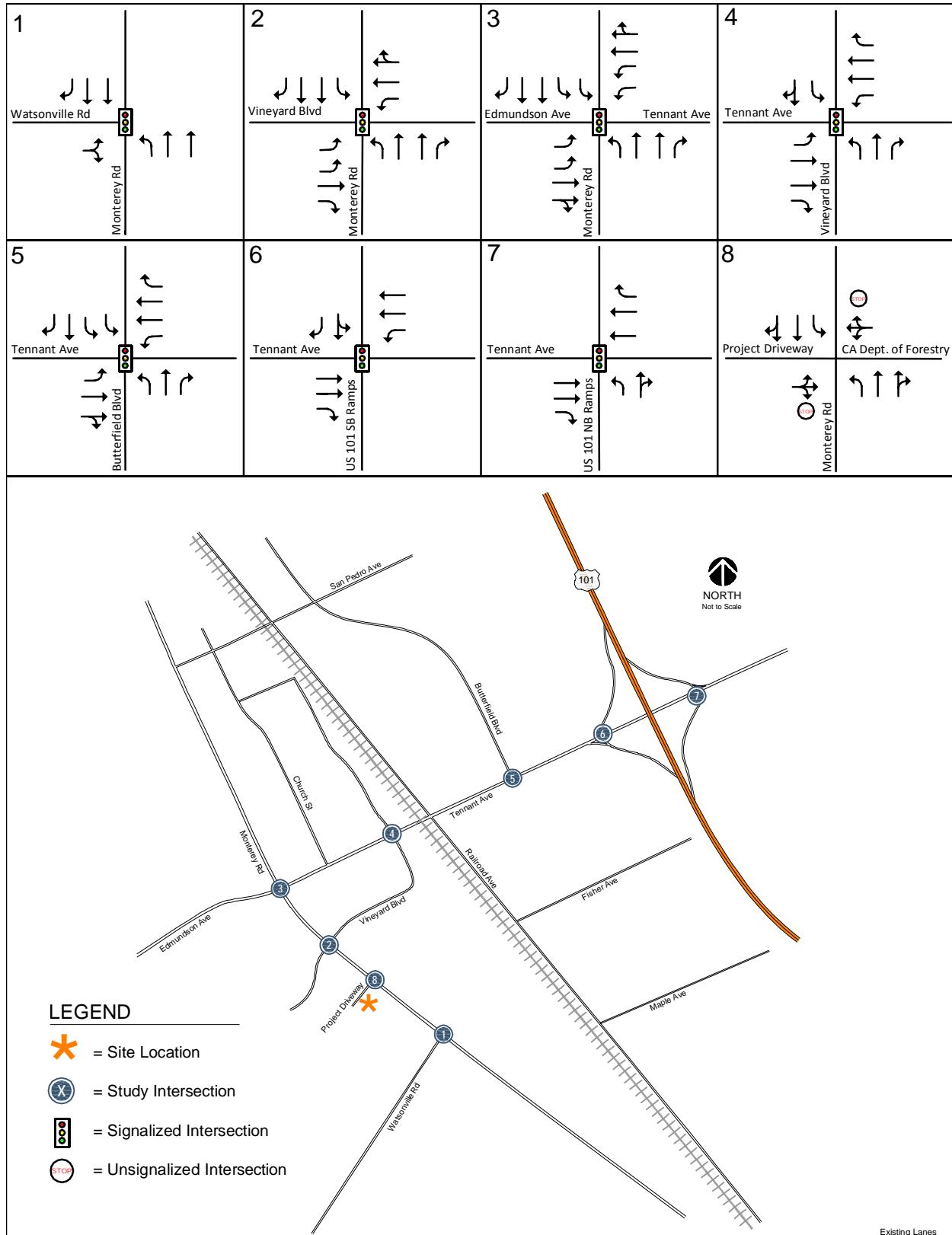
Existing peak-hour traffic volumes were obtained from new peak hour counts collected at each of the study intersections in April 2011. The existing peak-hour intersection volumes are shown on Figure 6. Intersection turning-movement counts conducted for this analysis are presented in Appendix A.



**Figure 3**  
**Existing Bicycle Facilities**



**Figure 4**  
**Existing Transit Services**



**Figure 5**  
**Existing Lane Configurations**

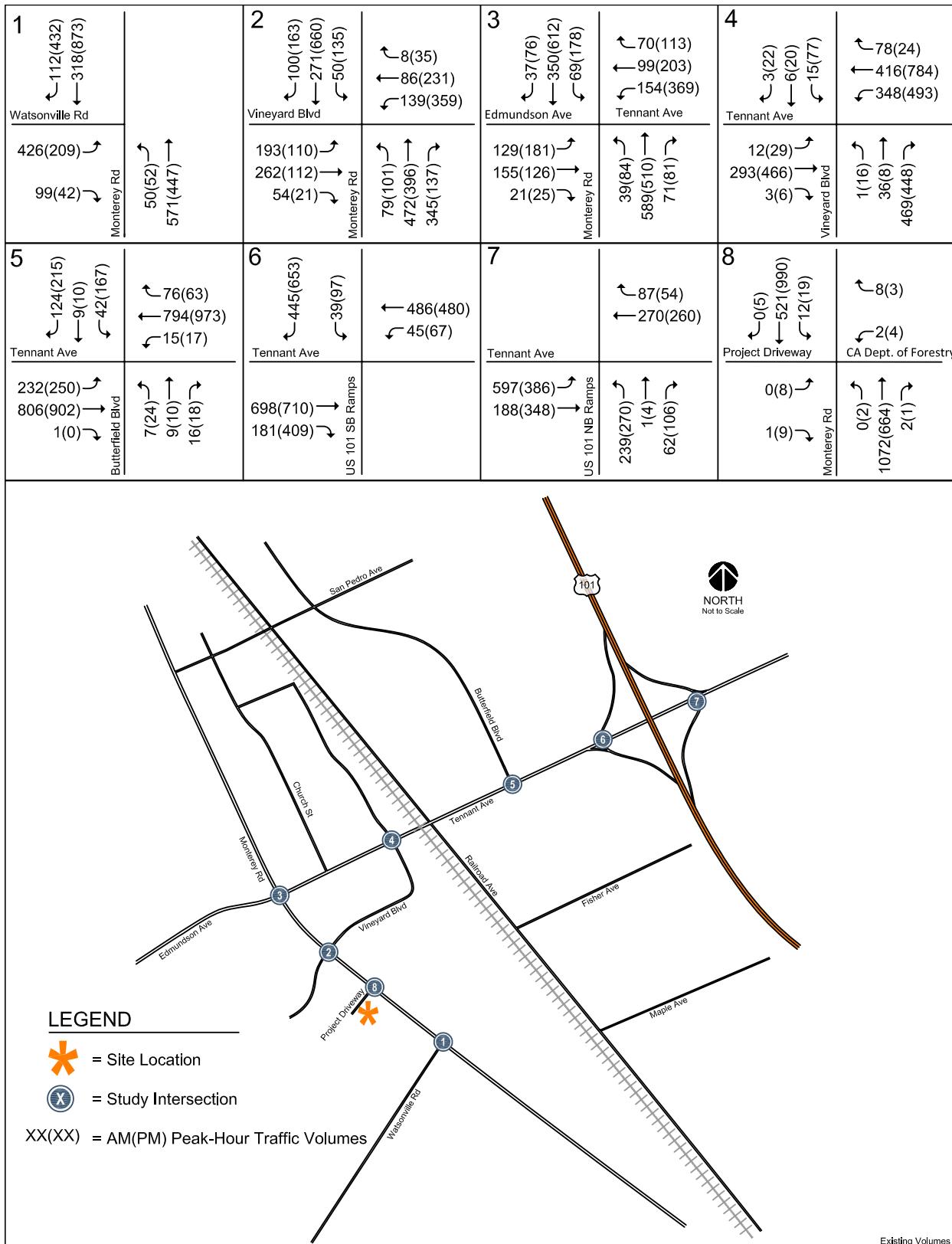


Figure 6  
Existing Traffic Volumes

## Existing Intersection Levels of Service

The results of the level of service analysis under existing conditions are summarized in Table 2. The results show that, measured against the City of Morgan Hill level of service standards, all the study intersections currently operate at an acceptable level of service under existing conditions during each of the peak hours analyzed. The level of service calculation sheets are included in Appendix C.

**Table 2**  
**Existing Intersection Levels of Service**

Study Number	Intersection	Peak Hour	Count Date	Avg. Delay <sup>1</sup>	LOS
1	Monterey Road and Watsonville Road	AM	03/29/11	16.8	B
		PM	03/29/11	11.8	B
2	Monterey Road and Vineyard Boulevard	AM	03/30/11	26.6	C
		PM	03/30/11	38.6	D
3	Monterey Road and Tennant Avenue	AM	03/31/11	24.1	C
		PM	03/31/11	32.1	C
4	Vineyard Boulevard and Tennant Avenue	AM	04/06/11	31.1	C
		PM	04/06/11	40.0	D
5	Butterfield Boulevard and Tennant Avenue	AM	04/05/11	22.7	C
		PM	04/05/11	26.8	C
6	US 101 Southbound Ramps and Tennant Avenue	AM	04/05/11	22.3	C
		PM	04/05/11	27.5	C
7	US 101 Northbound Ramps and Tennant Avenue	AM	04/06/11	21.4	C
		PM	04/06/11	19.6	B

<sup>1</sup>Intersection average control delay expressed in seconds.

### 3.

## Existing Plus Project Conditions

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This chapter describes existing plus project traffic conditions, significant project impacts, and measures that are recommended to mitigate project impacts. Included are descriptions of the significance criteria that define an impact, estimates of project-generated traffic, identification of the impacts, and descriptions of the mitigation measures. Existing plus project conditions are represented by existing traffic conditions with the addition of traffic generated by the proposed project.

### Significant Impact Criteria

Significance criteria are used to establish what constitutes an impact. Significance criteria for impacts on intersections for this analysis are based on the City of Morgan Hill Level of Service standards.

#### ***Definition of Significant Signalized Intersection Impacts***

All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of the following:

- **LOS F** for Downtown intersections and segments including at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Street;
- **LOS E** for the following intersections and freeway zones:
  - Main Avenue and Del Monte Avenue
  - Main Avenue and Depot Street
  - Dunne Avenue and Del Monte Avenue
  - Dunne Avenue and Monterey Avenue
  - Dunne Avenue and Church Street;
  - Dunne Avenue and Depot Street
  - Cochrane Road and Monterey Road
  - Tenant Avenue and Monterey Road
  - Tenant Avenue and Butterfield Boulevard
  - Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane Road/DePaul Drive
  - Dunne Avenue Freeway Zone: from Walnut Grove Drive/East Dunne Avenue to Condit Road/East Dunne Avenue
  - Tenant Avenue Freeway Zone: from Butterfield Boulevard/Tenant Avenue to Condit Road/Tenant Avenue

According to the City of Morgan Hill level of service guidelines, a development is said to create a significant adverse impact on traffic conditions at a signalized intersection if for either peak hour:

1. The level of service at the intersection degrades from an acceptable level (LOS D or LOS E as identified above) under existing conditions to an unacceptable level (LOS E or F) under project conditions, or
2. The level of service at the intersection is an unacceptable level (LOS E or F as identified above) under existing conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds *and* the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

## Transportation Network under Existing Plus Project Conditions

It is assumed in this analysis that the roadway network and intersection configurations under existing plus project conditions would be the same as described under existing conditions.

## Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution step, an estimate is made of the directions to and from which the project trips would travel. In the project trip assignment step, the project trips are assigned to specific streets and intersections in the study area. These procedures are described further in the following sections.

### Trip Generation

Through empirical research, data have been collected that correlate to common land uses their propensity for producing traffic. Thus, for the most common land uses there are standard trip generation rates that can be applied to help predict the future traffic increases that would result from a new development.

Hexagon has prepared project trip estimates for the proposed project based on trip generation rates obtained from ITE's *Trip Generation*, Eighth Edition, 2008. Trip generation for retail uses is typically adjusted to account for pass-by-trips. Pass-by-trips are trips that would already be on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Justification for applying the pass-by-trip reduction is founded on the observation that such retail traffic is not actually generated by the retail development, but is already part of the ambient traffic levels. Pass-by-trips are therefore excluded from the traffic projections. A pass-by trip reduction of 20% was applied to the retail component of the proposed project. Additionally, mixed-use reductions to account for the interaction of the proposed land uses were applied. The reductions are based on the assumption that vehicle trips to each of the proposed land uses of the site will be reduced due to internal circulation (i.e. residents patronizing the proposed retail space). A reduction of 15% was applied for the internalization of trips associated with residential and retail uses.

On the basis of the ITE trip generation rates and reductions for mixed-use development and pass-by-trips, it is estimated that the project would generate a total of 1,684 gross daily trips, with 66 trips (17 inbound and 49 outbound) occurring during the AM peak hour and 130 trips (75 inbound and 55 outbound) during the PM peak hour. The total net project trips that would be added to the roadway

network by the proposed project were estimated by subtracting the number of trips generated by the existing land uses on site from the total gross number of trips generated by the project. Based on the existing trip credits and reductions that were applied, the proposed project was estimated to generate a net additional 65 AM peak hour trips (17 inbound and 48 outbound) and 106 PM peak hour trips (68 inbound and 38 outbound). The project trip generation estimates are presented in Table 3.

### **Trip Distribution**

Peak hour project traffic was distributed to the transportation network using two separate distribution patterns, one for the trips associated with the proposed residential land uses and a second for trips associated with the proposed retail land uses. Both trip distribution patterns are based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The project trip distribution pattern is shown graphically on Figure 7.

### **Trip Assignment**

The peak-hour trips associated with the proposed project were added to the transportation network in accordance with the distribution pattern discussed above. Figure 8 shows the assignment of project traffic on the local transportation network. A tabular summary of project traffic at each study intersection is contained in Appendix B.

## **Existing Plus Project Traffic Volumes**

Project trips, as represented in the above project trip assignment, were added to existing traffic volumes to obtain existing plus project traffic volumes. The existing plus project traffic volumes are shown on Figure 9.

## **Existing Plus Project Intersection Analysis**

The results of the level of service analysis under existing plus project conditions are summarized in Table 4. The results show that, measured against the City of Morgan Hill level of service standards, all the study intersections are projected to operate at an acceptable level of service under existing plus project conditions during each of the peak hours analyzed. Therefore, no study intersections would be significantly impacted by the project, according to City's level of service impact criteria. The level of service calculation sheets are included in Appendix C.

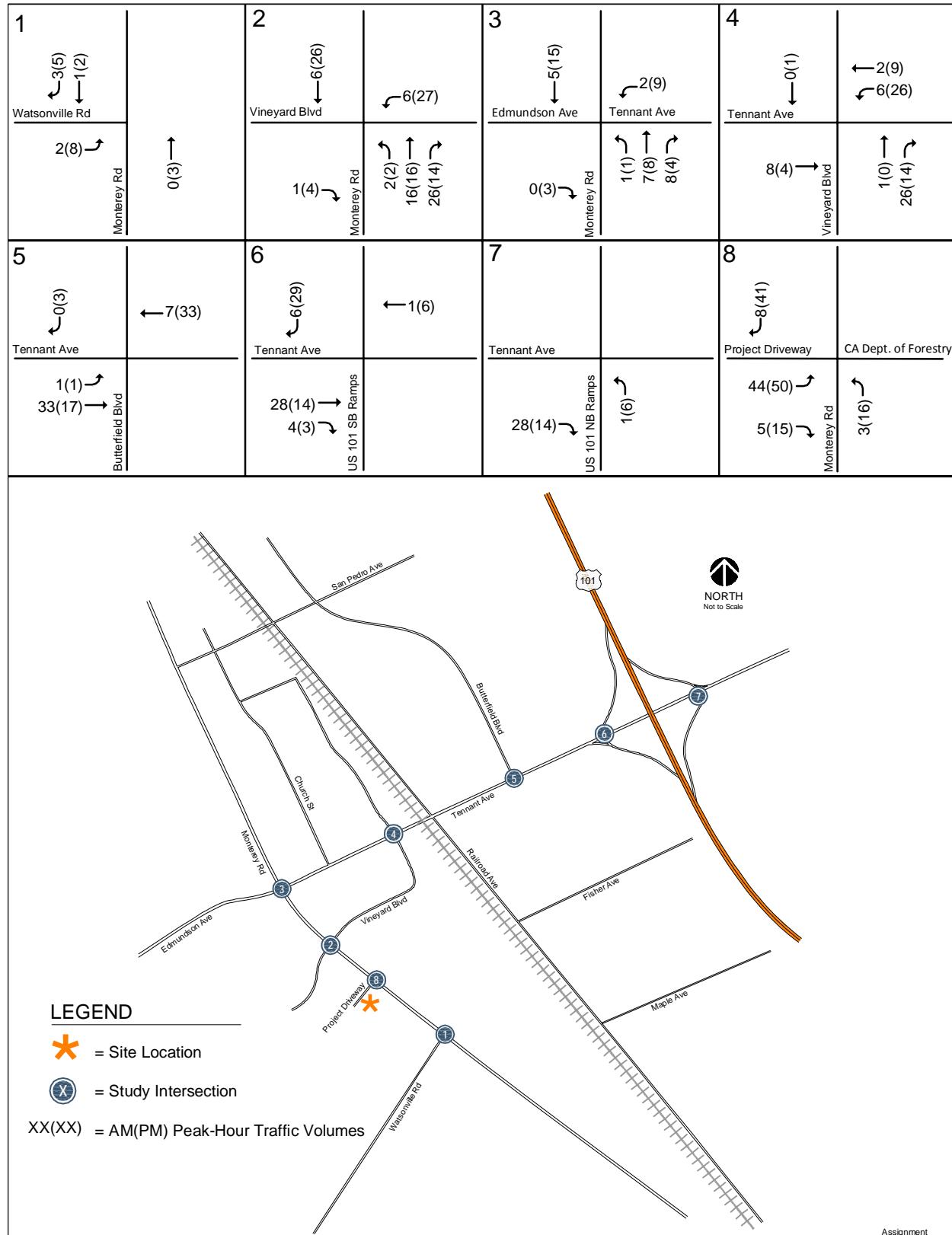
**Table 3**  
**Project Trip Generation Estimates**

Land Use	ITE Code	Size	Daily Trip Rates	Daily Trips	AM Peak Hour						PM Peak Hour					
					Pk-Hr Rate	Splits		Trips			Pk-Hr Rate	Splits		Trips		
					In	Out	In	Out	Total	In	Out	In	Out	In	Out	Total
<b>Proposed Uses</b>																
Condominium/ Townhouse	230	129 units	5.81	749	0.44	17%	83%	10	47	57	0.52	67%	33%	45	22	67
Housing Retail 15% (15% Housing) /a/	-15%			-112				-2	-7	-9				-7	-3	-10
<b>Sub-total</b>				<b>637</b>				<b>8</b>	<b>40</b>	<b>48</b>				<b>38</b>	<b>19</b>	<b>57</b>
Shopping Center	820	27,000 s.f.	42.94	1,159	1.00	61%	39%	16	11	27	3.73	49%	51%	49	52	101
Housing Retail 15% (15% Housing) /a/	-15%			-112				-7	-2	-9				-3	-7	-10
20% PM pass-by /b/	-20%													-9	-9	-18
<b>Sub-total</b>				<b>1,047</b>				<b>9</b>	<b>9</b>	<b>18</b>				<b>37</b>	<b>36</b>	<b>73</b>
<b>Total Gross Project Trips:</b>				<b>1,684</b>				<b>17</b>	<b>49</b>	<b>66</b>				<b>75</b>	<b>55</b>	<b>130</b>
<b>Existing Site (Driveway Count) *</b>				<b>-240</b>				<b>0</b>	<b>-1</b>	<b>-1</b>				<b>-7</b>	<b>-17</b>	<b>-24</b>
<b>Total Net Project Trips:</b>				<b>1,445</b>				<b>17</b>	<b>48</b>	<b>65</b>				<b>68</b>	<b>38</b>	<b>106</b>

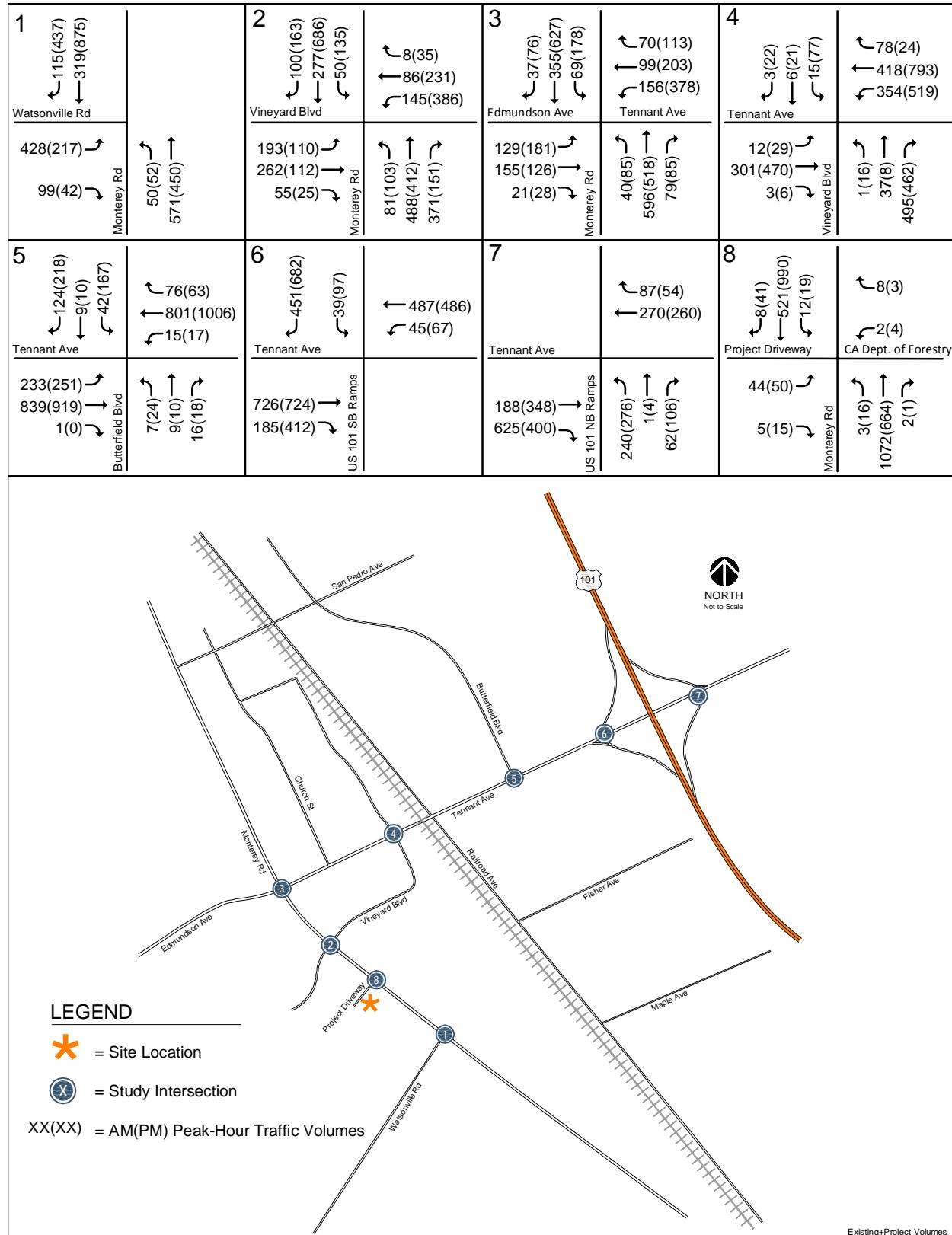
Notes:  
Source: ITE Trip Generation, 8th Edition 2008.  
\* Daily trips for existing site uses were assumed to be 10 times the PM peak hour trips.  
/a/ A reduction of 15% was applied to retail use for internalization between retail and residential use. Reduction was based on the smaller trip generator, which is the residential use (as prescribed by VTA Guidelines).  
/b/ 20% PM pass-by reduction was applied based on ITE Trip Generation Manual.



**Figure 7**  
**Project Trip Distribution**



**Figure 8**  
**Project Trip Assignment**



**Figure 9**  
**Existing Plus Project Traffic Volumes**

**Table 4**  
**Existing Plus Project Intersection Levels of Service**

Study Number	Intersection	Peak Hour	Existing		Existing Plus Project			
			Avg. Delay <sup>1</sup>	LOS	Avg. Delay <sup>1</sup>	LOS	Incr. In Crit. Delay	Incr. In Crit. V/C
1	Monterey Road and Watsonville Road	AM	16.8	B	16.8	B	0.0	0.002
		PM	11.8	B	11.9	B	0.2	0.009
2	Monterey Road and Vineyard Boulevard	AM	26.6	C	26.5	C	0.3	0.021
		PM	38.6	D	38.9	D	0.4	0.026
3	Monterey Road and Tennant Avenue	AM	24.1	C	24.1	C	0.0	0.003
		PM	32.1	C	32.0	C	0.0	0.009
4	Vineyard Boulevard and Tennant Avenue	AM	31.1	C	32.3	C	1.6	0.024
		PM	40.0	D	44.0	D	6.2	0.029
5	Butterfield Boulevard and Tennant Avenue	AM	22.7	C	22.6	C	0.0	0.003
		PM	26.8	C	26.9	C	0.1	0.012
6	US 101 Southbound Ramps and Tennant Avenue	AM	22.3	C	22.4	C	0.1	0.012
		PM	27.5	C	27.9	C	0.5	0.021
7	US 101 Northbound Ramps and Tennant Avenue	AM	21.4	C	21.5	C	0.0	0.001
		PM	19.6	B	19.7	B	0.0	0.003

<sup>1</sup>Intersection average control delay expressed in seconds.

## Freeway Segment Analysis

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted in all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP was not required. The percentage of traffic projected to be added by the project to surrounding freeway segments is summarized in Table 5.

**Table 5**  
**Freeway Segment Capacity**

<b>Freeway Segment</b>		<b>Direction</b>	<b>Peak Hour</b>	<b>Segment Capacity</b>		<b>Project Trips</b>	
				# of Lanes/a/	Capacity (vph)	Volume	% of Capacity
US 101	San Martin Avenue to Tennant Avenue	NB	AM	3.0	6,900	1	0.0%
		NB	PM	3.0	6,900	5	0.1%
US 101	Tennant Avenue to East Dunne Avenue	NB	AM	3.0	6,900	28	0.4%
		NB	PM	3.0	6,900	14	0.2%
US 101	East Dunne Avenue to Cochrane Road	NB	AM	3.0	6,900	28	0.4%
		NB	PM	3.0	6,900	14	0.2%
US 101	Cochrane Road to East Dunne Avenue	SB	AM	3.0	6,900	6	0.1%
		SB	PM	3.0	6,900	28	0.4%
US 101	East Dunne Avenue to Tennant Avenue	SB	AM	3.0	6,900	6	0.1%
		SB	PM	3.0	6,900	28	0.4%
US 101	Tennant Avenue to San Martin Avenue	SB	AM	3.0	6,900	4	0.1%
		SB	PM	3.0	6,900	3	0.0%

/a/ Source: Santa Clara Valley Transportation Authority Congestion Management Program Monitoring Study, 2010.

## 4. **Other Transportation Issues**

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This chapter presents an analysis of other transportation issues associated with the project site, including:

- Vehicular site access
- Potential impacts to bike, pedestrian and transit facilities

Unlike the level of service impact methodology, which is adopted by the City Council, the analyses in this chapter are based on professional judgment in accordance with the standards and methods employed by the traffic engineering community.

### **Site Access**

A review of the project site plan was performed to determine if adequate site access is provided and to identify any access or circulation issues that should be improved. This review is based on the site plan prepared by Development Process Consultants and MH Engineering, dated September 28, 2009. The site plan indicates that main access to the project site would be provided via a full-access intersection along Monterey Road, directly opposite the California Department of Forestry Fire Station entrance (referred to as Project Entrance throughout the report). A second residential access point would be provided north of the main access driveway, and it would consist of a right in and out only driveway.

The site access analysis includes an evaluation of intersection level of service, signal warrants, vehicular queues, and sight distance at the proposed Project Entrance along Monterey Road under project conditions. Results of the site access analysis are described below and summarized in Table 6.

### ***Level of Service Analysis***

The Project Entrance was analyzed using unsignalized level of service methodology. The Project Entrance was analyzed with the TRAFFIX level of service software, which uses the *Highway Capacity Manual* (HCM) 2000 methodology for unsignalized intersections. This method is applicable for two-way stop-controlled (TWSC) intersections. Two-way stop-controlled intersections have stop signs on the minor street approaches and no control on the major street approaches. The TWSC intersection level of service is determined from average control delay for the most congested approach at the intersection. The City of Morgan Hill level of service standard for unsignalized intersections is LOS D or better.

**Table 6**  
**Site Access Analysis Summary**

	Peak Hour	Signal Warrant Analysis <sup>1</sup>	Intersection LOS Analysis <sup>2</sup>		Vehicular Queue Analysis <sup>3</sup>						Sight Distance Analysis <sup>5</sup>	
			Avg. Delay (sec.)	LOS	Northbound LT			Eastbound LT			Northbound Length (ft.)	Southbound Length (ft.)
					# of Vehicles	Length (ft.) <sup>4</sup>	Storage Avail. (ft.)	# of Vehicles	Length (ft.) <sup>4</sup>	Storage Avail. (ft.)		
Monterey Road and Project Entrance	AM	No	32.6	D	1	25	1,000	2	50	--	1,050	1,100
	PM	No	<b>68.2</b>	F	1	25	1,000	3	75	--	1,050	1,100

Notes:

<sup>1</sup> Signal warrant analysis based on the Peak Hour Signal Warrant #3, Figure 4C Caltrans MUTCD 2010 Edition.

<sup>2</sup> Worst case delay for unsignalized intersections based on HCM 2000 Operations Method using TRAFFIX software.

<sup>3</sup> Vehicle queue calculations based on movement delay for unsignalized operations.

<sup>4</sup> Assumes 25 feet per vehicle queued.

<sup>5</sup> Required sight distance for 45 mph on Monterey Road is 360 ft. based on the American Association of State Highway and Transportation Officials (AASHTO) Geometric Design of Highways and Streets, Exhibit 3-1.

**Bold** indicates unacceptable levels of service.

The results of the level of service analysis at the Project Entrance indicate that this intersection would operate at LOS F conditions during the PM peak hour. The projected poor levels of service at the Project Entrance are due to the delay experienced by the controlled movements from the minor street, the Project Entrance in this case, due to inadequate gaps in the traffic stream on Monterey Road. The level of service calculation sheets are contained in Appendix D.

### **Signal Warrant Analysis**

The need for signalization of unsignalized intersections is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2010. This method makes no evaluation of intersection level of service, but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

The results of the peak-hour traffic signal warrant checks indicate that the Project Entrance would not have traffic volumes under project conditions that meet thresholds that warrant signalization. The peak-hour signal warrant sheets are contained in Appendix D.

According to the City of Morgan Hill level of service guidelines, a development is said to have a significant adverse impact on traffic conditions at an unsignalized intersection if for either peak hour the addition of project traffic causes the worst approach delay to degrade to LOS E or F **and** the traffic volumes at the intersection are sufficiently high to satisfy the peak hour volume warrants. Based on the City's impact criteria and signal warrant analysis results, the project is not required to signalize the Project Entrance.

Although the project is not required to signalize the Project Entrance intersection, based on the intersection level of service results, traffic from the minor approaches of the intersection are expected to experience long delays as they wait for a gap in traffic along the major roadway (Monterey Road) to complete their turn movement. Signalization of the Project Entrance intersection would improve overall intersection operating levels by minimizing delays from the Project Entrance and the California Department of Forestry driveway (minor approaches) in addition to making access to/from the minor approaches of the intersection more convenient. Level of service analysis indicates that with signalization, the proposed Project Entrance would operate at LOS B or better during both peak hours under project conditions. The City ultimately will determine the adequacy of the proposed driveways and on-site circulation plan.

### **Vehicular Queuing Analysis**

The vehicular queuing analysis is based on vehicle queuing for high demand turning movements at the Project Entrance. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of "n" vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-(\lambda)}}{n!}$$

Where:

P (x=n) = probability of "n" vehicles in queue per lane

n = number of vehicles in the queue per lane

$\lambda$  = Average number of vehicles in the queue per lane (vehicles per hour per lane/signal cycles per hour)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95<sup>th</sup> percentile maximum number of queued vehicles per signal cycle for a particular movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet

per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the movement. This analysis thus provides a basis for estimating future storage requirements at intersections. The vehicular queuing analysis (Poisson probability calculations) is included in Appendix D.

The vehicular queuing analysis indicates that maximum vehicle queues for the left-turn movements at the proposed Project Entrance would not exceed one vehicle (25 feet) in the northbound direction (northbound Monterey Road to Project Entrance) and three vehicles in the eastbound direction (Project Entrance to northbound Monterey Road). The existing and proposed left-turn storage capacity would be adequate to accommodate project traffic.

### **Sight Distance Analysis**

This analysis consists of measuring the available sight distance at the proposed Project Entrance along Monterey Road and comparing it to the minimum required distance based upon standard criteria. The American Association of State Highway and Transportation Officials (AASHTO) *Geometric Design of Highways and Streets* specifies minimum required sight distances as a function of vehicle speed. The process for determining the adequacy of available sight distance at each driveway location is as follows:

- The minimum stopping sight distance associated with the posted speed limit, using the American Association of State Highway and Transportation Officials (AASHTO) *Geometric Design of Highways and Streets*, Exhibit 3-1, is calculated
- The available sight distance for each driveway is measured out in the field
- The available sight distance is compared to the minimum stopping sight distance to determine if sufficient sight distance is available.

Monterey Road is a four-lane roadway with posted speed limit of 45 miles per hour (mph) and on-street parking permitted along both sides of the street. A minimum of 360 feet of sight distance is required for a roadway with travel speeds of 45 mph, based on the AASHTO Guidelines. Based on field observations conducted on April 26, 2011, approximately 1,100 feet to the south (towards Watsonville Road) and 1,050 feet to the north (towards Vineyard Boulevard) of sight distance are currently provided at the Project Entrance along Monterey Road. Therefore, adequate sight distance is provided at the proposed Project Entrance.

### **Transit, Pedestrian and Bicycle Analysis**

Though the transit options in the immediate vicinity of the project site are limited, enhancing the transit facilities may not be feasible based solely on ridership demands of the proposed project. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than four transit riders during the AM and PM peak hours.

There is no sidewalk along the project's frontage on Monterey Road. However, there is a sidewalk that terminates at the project's northern boundary. The project will result in an increase in demand on pedestrian facilities. Therefore, a sidewalk with connection to the existing sidewalk north of the project site should be constructed along the project's frontage to provide residents and visitors with a safe connection between the project site and other surrounding land uses in the area.

It is expected that bicycle trips would comprise no more than one percent of the total project-generated trips. Thus, the project could potentially generate no more than one new bicycle trip during each of the peak hours. Therefore, the demand generated by the proposed project would not justify the construction of new bicycle facilities. Though many roadways in the project area are not considered ideal routes for bicyclists due to the moderate to heavy traffic volumes, presence of on-street parking, and narrow travel area for bicyclists, bicyclists may nonetheless choose to use them for commuting and recreational purposes since they often provide the shortest route. Bicyclists should use the surrounding roadways with extreme caution.

## 5.

# Year 2015 Cumulative Conditions

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This chapter describes Year 2015 cumulative traffic conditions with and without the proposed project. Cumulative conditions are comprised of forecasted traffic volumes and reflect estimated traffic growth in the City of Morgan Hill for the Year 2015. This chapter describes the procedure used to determine Year 2015 cumulative traffic volumes and the resulting traffic conditions.

## Transportation Network under Cumulative Conditions

It is assumed that the roadway network under Year 2015 cumulative conditions would be the same as the roadway network described under project conditions, with the exception of the planned Butterfield Boulevard extension between Tennant Avenue and Monterey Road. The planned extension of Butterfield Boulevard will extend Butterfield Boulevard south from its current termini at Tennant Avenue to Monterey Road where it will form the east approach at the Monterey Road and Watsonville Road intersection. The Butterfield Boulevard extension has a projected completion date of mid-2013 and is included within the City's Year 2015 traffic model network.

## Cumulative Traffic Volumes

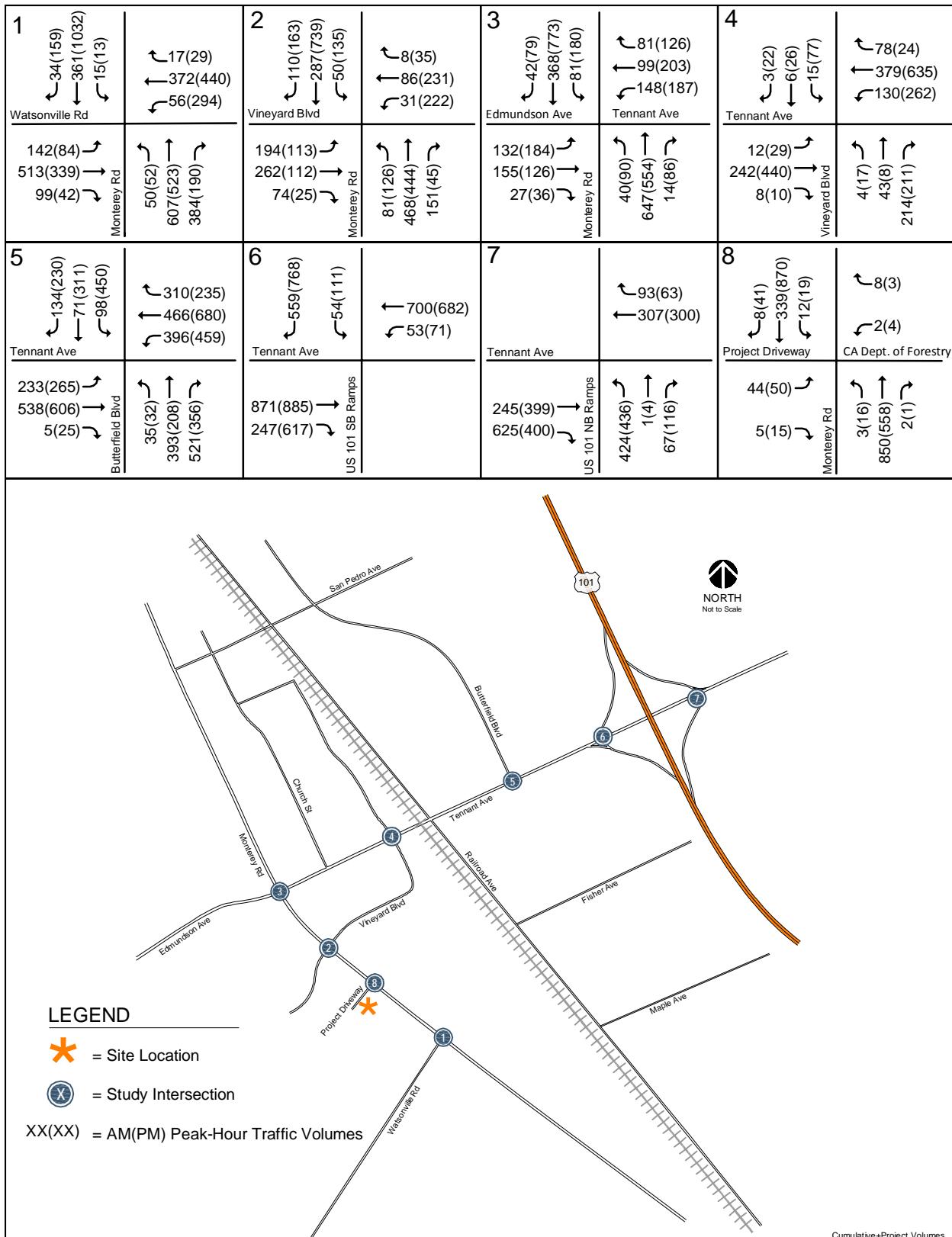
Cumulative traffic volumes were obtained from Year 2015 traffic forecasts produced using the City of Morgan Hill traffic demand forecasting model. The Year 2015 traffic forecasts include land use growth and transportation improvements associated with the City's 2010 General Plan.

The Year 2015 cumulative traffic volumes used in the analysis were developed by Hexagon using a growth method that involved adding growth from forecasted turn-movements to existing traffic counts at each of the study intersections. The difference between Base Year and Year 2015 forecasted turn movements were added to existing counts to develop Year 2015 cumulative turn movements at each of the study intersections. The net new project trips presented in Chapter 3 were then added to Year 2015 cumulative traffic volumes to represent Year 2015 cumulative with project conditions. Figures 10 and 11 show the Year 2015 cumulative without and with project traffic volumes, respectively. Appendix B lists each of the components used to tabulate cumulative traffic volumes at each study intersection.

1 Watsonville Rd  140(76) → 513(339) → 99(42) ↘	31(154) → 360(1030) → 15(13)  17(29) ← 372(440) ↓ 56(294)  50(52) ↑ 607(520) ↑ 384(190) ↗	2 Vineyard Blvd  194(113) → 262(112) → 73(21) ↘  110(163) → 281(713) ↓ 50(135)  8(35) ← 86(231) ↓ 25(195)	3 Edmundson Ave  132(184) → 155(126) → 27(33) ↓  42(79) → 363(758) ↓ 81(180)  12(29) → 234(436) → 8(10) ↓  39(89) ↑ 640(546) → 6(82) ↗	4 Tennant Ave  12(29) → 234(436) → 8(10) ↓  3(22) → 6(25) ↓ 15(77)  78(24) ← 377(626) ↓ 124(236)
5 Tennant Ave  134(227) → 71(311) ↓ 98(450)  35(32) ↑ 393(208) → 52(356) ↗	310(235) ← 459(647) ↓ 396(459)  5(25) ↘  35(32) ↑ 393(208) → 52(356) ↗	6 Tennant Ave  553(739) → 54(111)  843(871) → 243(614) ↘  699(676) ↓ 53(71)  US 101 SB Ramps	7 Tennant Ave  245(399) → 597(386) ↓  423(430) → 1(4) → 67(116) ↗  93(63) ← 307(300)	8 Project Driveway  0(8) → 1(9) ↓  0(5) → 339(870) ↓ 12(19)  8(3) → 2(4)  CA Dept. of Forestry  0(2) → 850(558) → 2(1) ↗



Figure 10  
Year 2015 Cumulative No Project Traffic Volumes



**Figure 11**  
**Year 2015 Cumulative Plus Project Traffic Volumes**

## Intersection Levels of Service under Cumulative Conditions

The level of service results under cumulative conditions are summarized in Table 7. The results show that, measured against the City of Morgan Hill level of service standards, all the study intersections are projected to operate at an acceptable level of service under Year 2015 cumulative conditions without and with the project during each of the peak hours. The intersection level of service calculations are included in Appendix C.

**Table 7**  
**Year 2015 Cumulative Intersection Levels of Service**

Study Number	Intersection	Peak Hour	2015 Cumulative No Project		2015 Cumulative Plus Project		
			Avg. Delay <sup>1</sup>	LOS	Avg. Delay <sup>1</sup>	LOS	Incr. In Crit. Delay
1	Monterey Road and Watsonville Road	AM	29.5	C	29.5	C	0.0
		PM	33.0	C	33.1	C	0.001
2	Monterey Road and Vineyard Boulevard	AM	25.8	C	25.8	C	0.0
		PM	35.9	D	36.2	D	0.5
3	Monterey Road and Tennant Avenue	AM	24.3	C	24.2	C	0.0
		PM	30.5	C	30.4	C	-0.1
4	Vineyard Boulevard and Tennant Avenue	AM	34.6	C	34.6	C	2.2
		PM	28.2	C	28.9	C	1.4
5	Butterfield Boulevard and Tennant Avenue	AM	35.2	D	35.4	D	0.0
		PM	38.8	D	39.0	D	0.4
6	US 101 Southbound Ramps and Tennant Avenue	AM	24.2	C	24.3	C	0.2
		PM	29.9	C	30.7	C	0.9
7	US 101 Northbound Ramps and Tennant Avenue	AM	23.1	C	23.1	C	0.0
		PM	21.1	C	21.2	C	0.003

<sup>1</sup>Intersection average control delay expressed in seconds.

## 6. Conclusions

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The potential impacts of the project were evaluated in accordance with the standards set forth by the City of Morgan Hill and the Santa Clara Valley Transportation Authority (VTA). The study included the analysis of traffic conditions at seven signalized study intersections during the weekday AM and PM peak hours. The weekday AM peak hour of traffic is generally between 7:00 and 9:00 AM and the weekday PM peak hour is typically between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on a typical weekday.

The impacts of the project on intersections were identified on the basis of the City of Morgan Hill Level of Service standards. Project impacts on other transportation facilities, such as pedestrian facilities, bicycle facilities and transit, were determined on the basis of engineering judgment.

### Intersection Level of Service Analysis

The results of the intersection level of service analysis under project conditions show that no study intersections would be impacted by the project according to City of Morgan Hill level of service standards.

### Freeway Segment Analysis

Per CMP technical guidelines, freeway segment level of service analysis shall be conducted on all segments to which the project is projected to add one percent or more to the segment capacity. Since the project is not projected to add one percent to any freeway segments in the area, freeway analysis for the CMP was not required.

### Other Transportation Issues

#### **Site Access**

A review of the project site plan was performed to determine if adequate site access is provided and to identify any access or circulation issues that should be improved. The site access analysis consists of an evaluation of levels of service, signal warrants, vehicular queues, and sight distance at the Project Entrance. This review is based on the site plan prepared by Development Process Consultants and MH Engineering, dated September 28, 2009. The site plan indicates that main access to the project site



would be provided via a full-access intersection along Monterey Road, directly opposite the California Department of Forestry Fire Station entrance. A second residential access point would be provided north of the main access driveway, and it would consist of a right in and out only driveway.

The results of the site access analysis indicate that the Project Entrance will operate at LOS F conditions during the PM peak hour. However, the Project Entrance would not have traffic volumes under project conditions that meet thresholds that warrant signalization. According to the City of Morgan Hill level of service guidelines, a development is said to have a significant adverse impact on traffic conditions at an unsignalized intersection if for either peak hour the addition of project traffic causes the worst approach delay to degrade to LOS E or F **and** the traffic volumes at the intersection are sufficiently high to satisfy the peak hour volume warrants. Based on the City's impact criteria and signal warrant analysis results, the project is not required to signalize the Project Entrance.

Although the project is not required to signalize the Project Entrance intersection, based on the intersection level of service results, traffic from the minor approaches of the intersection are expected to experience long delays as they wait for a gap in traffic along the major roadway (Monterey Road) to complete their turn movement. Signalization of the Project Entrance intersection would improve overall intersection operating levels by minimizing delays from the Project Entrance and the California Department of Forestry driveway (minor approaches) in addition to making access to/from the minor approaches of the intersection more convenient. Level of service analysis indicates that with signalization, the proposed Project Entrance would operate at LOS B or better during both peak hours under project conditions.

The evaluation of site distance at the proposed Project Entrance indicates that adequate sight distance is provided at the proposed Project Entrance location. An analysis of vehicular queues at the Project Entrance indicates that the existing and proposed left-turn storage capacity would be adequate to accommodate project traffic.

The City ultimately will determine the adequacy of the proposed driveways and on-site circulation plan.

### ***Transit, Pedestrian, and Bicycle Analysis***

Though the transit options in the immediate vicinity of the project site are limited, enhancing the transit facilities may not be feasible based solely on ridership demands of the proposed project. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than four transit riders during the AM and PM peak hours.

There is no sidewalk along the project's frontage on Monterey Road. However, there is a sidewalk that terminates at the project's northern boundary. The project will result in an increase in demand on pedestrian facilities. Therefore, a sidewalk with connection to the existing sidewalk north of the project site should be constructed along the project's frontage to provide residents and visitors with a safe connection between the project site and other surrounding land uses in the area.

It is expected that bicycle trips would comprise no more than one percent of the total project-generated trips. Thus, the project could potentially generate no more than one new bicycle trip during each of the peak hours. Therefore, the demand generated by the proposed project would not justify the construction of new bicycle facilities. Though many roadways in the project area are not considered ideal routes for bicyclists due to the moderate to heavy traffic volumes, presence of on-street parking, and narrow travel area for bicyclists, bicyclists may nonetheless choose to use them for commuting and recreational purposes since they often provide the shortest route. Bicyclists should use the surrounding roadways with extreme caution.

## **Cumulative Impacts on Intersection Levels of Service**

The results of the study intersection level of service analysis under cumulative conditions indicate that all study intersections would operate within the City's level of service standards during each of the peak hours both without and with the project under Year 2015 conditions. The addition of project traffic to the

study intersections would not result in a degradation of levels of service when compared to cumulative no project conditions. Therefore, the project would not have a cumulatively significant impact at the study intersections.



## **Appendix A**

### **Traffic Counts**

## **Appendix B**

### **Volume Summary**

## **Appendix C**

### **Level of Service Calculations**

## **Appendix D**

### **Site Access Analysis**

**Diamond Creek Villas  
Mixed-Use Development  
Technical Appendices**

May 5, 2011

## **Appendix A**

### **Traffic Counts**

## MONTEREY ROAD & WATSONVILLE ROAD

### AM Peak-Hour Volumes

#### 15-Minute Volumes

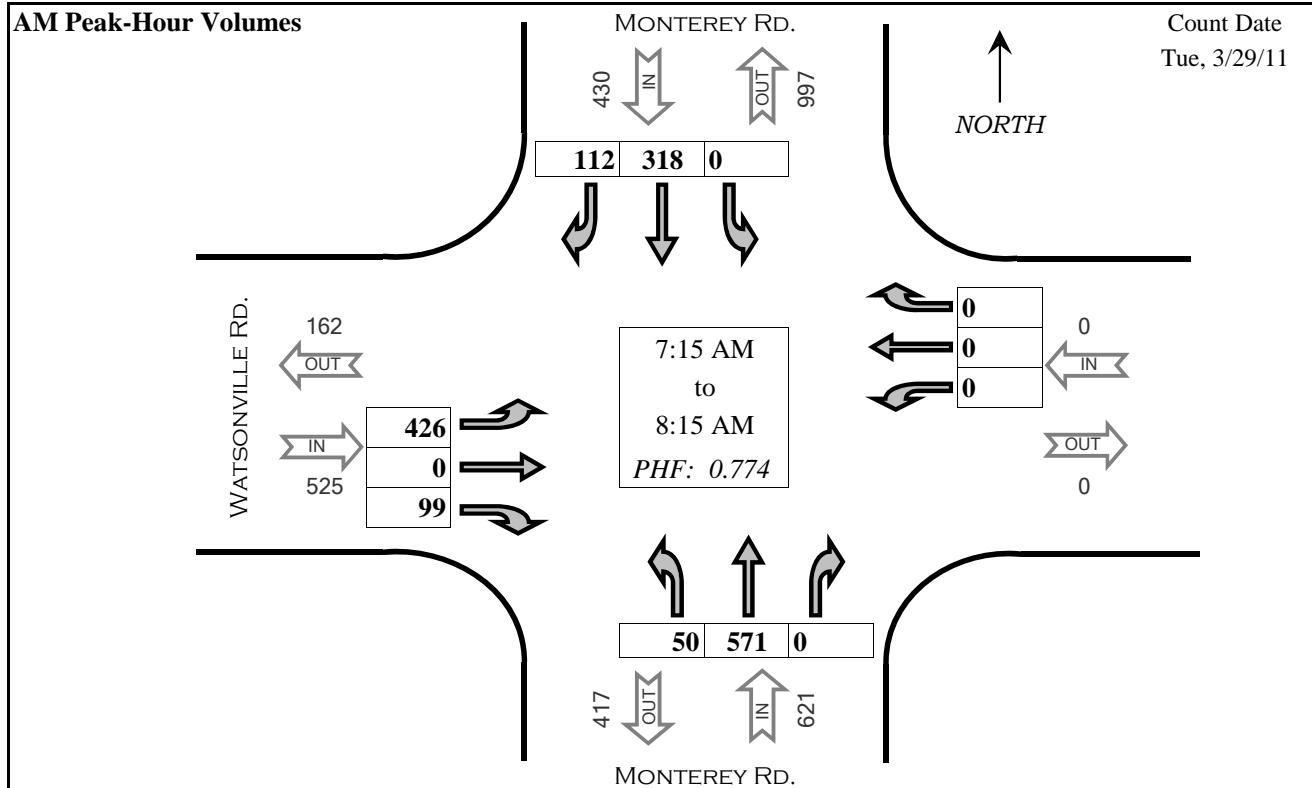
Start Time	Monterey Rd.						Monterey Rd.			Watsonville Rd.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	22	38	0	0	0	0	0	91	7	15	0	110	283	
7:15 AM	20	43	0	0	0	0	0	107	10	14	0	115	309	
7:30 AM	18	106	0	0	0	0	0	135	16	39	0	125	439	
7:45 AM	31	107	0	0	0	0	0	210	21	36	0	104	509	
8:00 AM	43	62	0	0	0	0	0	119	3	10	0	82	319	
8:15 AM	48	60	0	0	0	0	0	94	14	16	0	76	308	
8:30 AM	33	70	0	0	0	0	0	95	11	13	0	75	297	
8:45 AM	28	57	0	0	0	0	0	104	9	11	0	84	293	
2-Hr Total	243	543	0	0	0	0	0	955	91	154	0	771	2757	

#### Hourly Volumes

Start Time	Monterey Rd.						Monterey Rd.			Watsonville Rd.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	91	294	0	0	0	0	0	543	54	104	0	454	1540	
7:15 AM	112	318	0	0	0	0	0	571	50	99	0	426	1576	
7:30 AM	140	335	0	0	0	0	0	558	54	101	0	387	1575	
7:45 AM	155	299	0	0	0	0	0	518	49	75	0	337	1433	
8:00 AM	152	249	0	0	0	0	0	412	37	50	0	317	1217	

#### Peak-Hour Volume

7:15 AM	112	318	0	0	0	0	0	571	50	99	0	426	1576
Peak-Hour Factor	0.651	0.743	--	--	--	--	--	0.680	0.595	0.635	--	0.852	0.774



## MONTEREY ROAD & WATSONVILLE ROAD

### PM Peak-Hour Volumes

#### 15-Minute Volumes

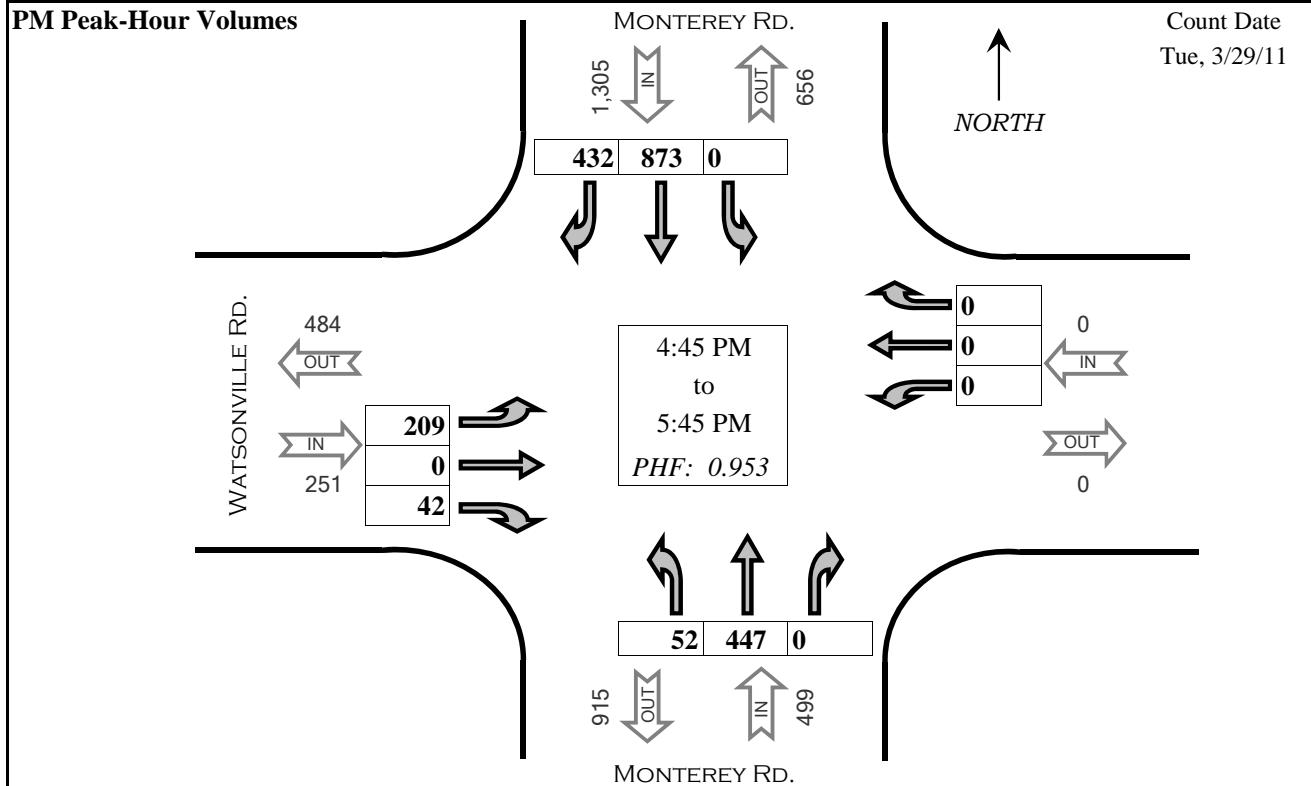
Start Time	Monterey Rd.						Monterey Rd.			Watsonville Rd.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	88	177	0	0	0	0	0	92	19	18	0	70	464	
4:15 PM	80	189	0	0	0	0	0	121	22	23	0	76	511	
4:30 PM	92	202	0	0	0	0	0	92	22	16	0	66	490	
4:45 PM	100	213	0	0	0	0	0	113	16	13	0	51	506	
5:00 PM	107	228	0	0	0	0	0	100	14	14	0	49	512	
5:15 PM	89	205	0	0	0	0	0	122	14	9	0	59	498	
5:30 PM	136	227	0	0	0	0	0	112	8	6	0	50	539	
5:45 PM	111	177	0	0	0	0	0	109	15	15	0	53	480	
2-Hr Total	803	1618	0	0	0	0	0	861	130	114	0	474	4000	

#### Hourly Volumes

Start Time	Monterey Rd.						Monterey Rd.			Watsonville Rd.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM	360	781	0	0	0	0	0	418	79	70	0	263	1971	
4:15 PM	379	832	0	0	0	0	0	426	74	66	0	242	2019	
4:30 PM	388	848	0	0	0	0	0	427	66	52	0	225	2006	
4:45 PM	432	873	0	0	0	0	0	447	52	42	0	209	2055	
5:00 PM	443	837	0	0	0	0	0	443	51	44	0	211	2029	

#### Peak-Hour Volume

4:45 PM	432	873	0	0	0	0	0	447	52	42	0	209	2055
Peak-Hour Factor	0.794	0.957	--	--	--	--	--	0.916	0.813	0.750	--	0.886	0.953



## MONTEREY ROAD & VINEYARD BOULEVARD

### AM Peak-Hour Volumes

#### 15-Minute Volumes

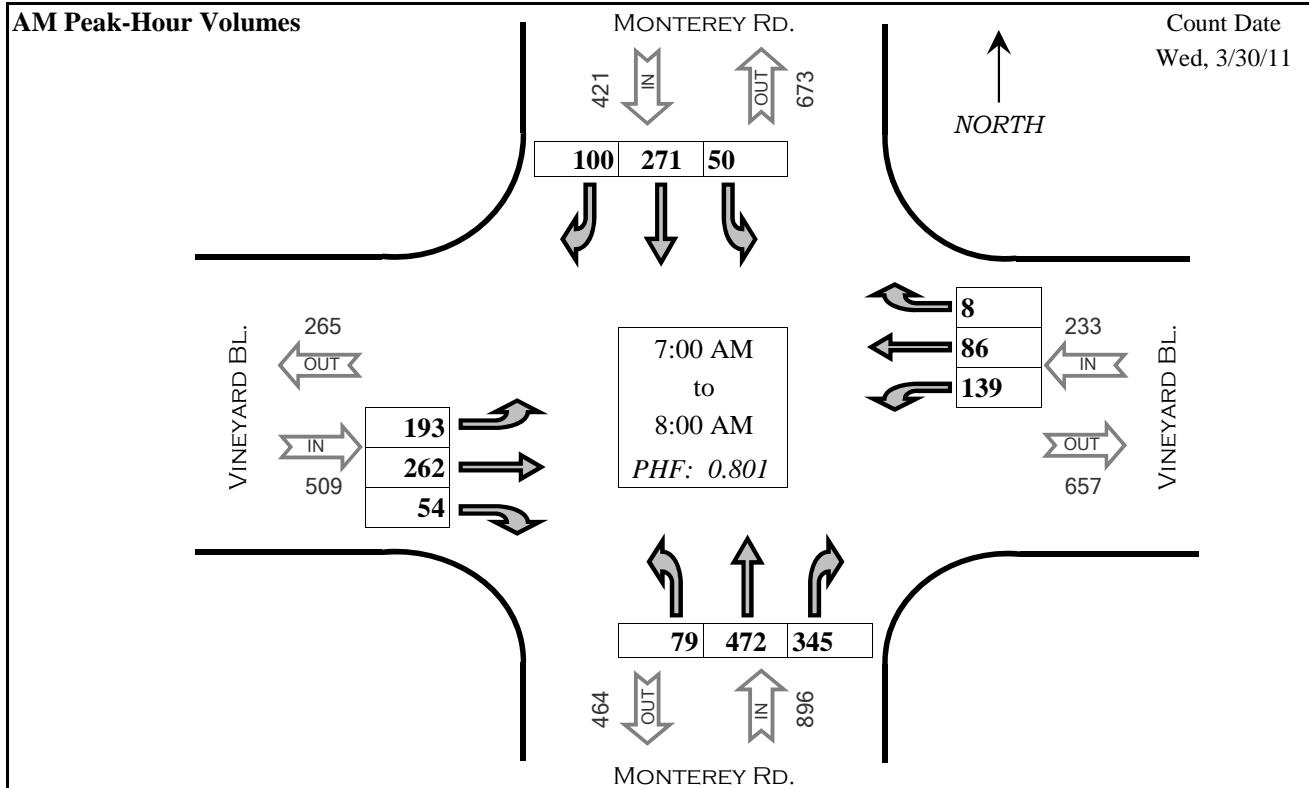
Start Time	Monterey Rd.			Vineyard Bl.			Monterey Rd.			Vineyard Bl.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	7	51	6	5	12	21	97	98	13	37	67	28	442	
7:15 AM	26	33	8	1	25	29	80	97	15	4	54	53	425	
7:30 AM	55	74	12	0	22	40	69	143	38	9	100	81	643	
7:45 AM	12	113	24	2	27	49	99	134	13	4	41	31	549	
8:00 AM	16	81	17	0	10	27	69	83	17	2	42	19	383	
8:15 AM	18	73	19	0	13	24	96	98	15	2	46	42	446	
8:30 AM	19	74	16	2	17	30	66	120	12	3	51	111	521	
8:45 AM	32	89	12	2	13	21	51	73	15	3	29	-29	311	
2-Hr Total	185	588	114	12	139	241	627	846	138	64	430	336	3720	

#### Hourly Volumes

Start Time	Monterey Rd.			Vineyard Bl.			Monterey Rd.			Vineyard Bl.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left											
7:00 AM	100	271	50	8	86	139	345	472	79	54	262	193	2059	
7:15 AM	109	301	61	3	84	145	317	457	83	19	237	184	2000	
7:30 AM	101	341	72	2	72	140	333	458	83	17	229	173	2021	
7:45 AM	65	341	76	4	67	130	330	435	57	11	180	203	1899	
8:00 AM	85	317	64	4	53	102	282	374	59	10	168	143	1661	

#### Peak-Hour Volume

7:00 AM	100	271	50	8	86	139	345	472	79	54	262	193	2059
Peak-Hour Factor	0.455	0.600	0.521	0.400	0.796	0.709	0.871	0.825	0.520	0.365	0.655	0.596	0.801



## MONTEREY ROAD & VINEYARD BOULEVARD

### PM Peak-Hour Volumes

#### 15-Minute Volumes

Start Time	Monterey Rd.			Vineyard Bl.			Monterey Rd.			Vineyard Bl.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	31	161	27	8	60	63	44	133	35	4	28	29	623	
4:15 PM	34	159	30	5	49	70	45	137	26	6	30	22	613	
4:30 PM	38	133	36	6	64	88	43	90	16	9	31	20	574	
4:45 PM	30	155	20	4	57	79	45	106	17	3	23	23	562	
5:00 PM	41	175	38	10	51	79	34	112	25	4	33	21	623	
5:15 PM	39	161	34	6	59	85	40	93	31	4	28	38	618	
5:30 PM	42	144	24	9	65	92	17	102	33	3	23	23	577	
5:45 PM	41	180	39	10	56	103	46	89	12	10	28	28	642	
2-Hr Total	296	1268	248	58	461	659	314	862	195	43	224	204	4832	

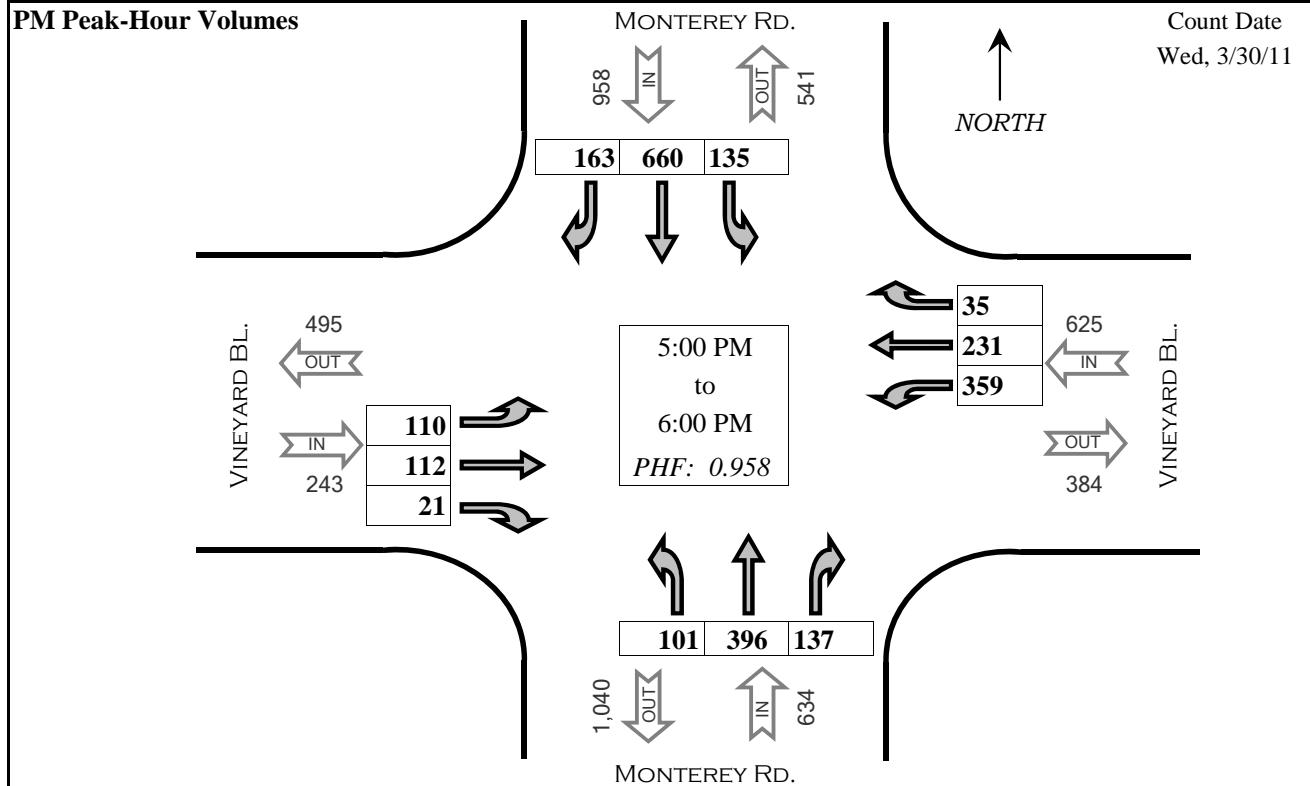
#### Hourly Volumes

Start Time	Monterey Rd.			Vineyard Bl.			Monterey Rd.			Vineyard Bl.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left											
4:00 PM	133	608	113	23	230	300	177	466	94	22	112	94	2372	
4:15 PM	143	622	124	25	221	316	167	445	84	22	117	86	2372	
4:30 PM	148	624	128	26	231	331	162	401	89	20	115	102	2377	
4:45 PM	152	635	116	29	232	335	136	413	106	14	107	105	2380	
5:00 PM	163	660	135	35	231	359	137	396	101	21	112	110	2460	

#### Peak-Hour Volume

5:00 PM	163	660	135	35	231	359	137	396	101	21	112	110	2460
Peak-Hour Factor	0.970	0.917	0.865	0.875	0.888	0.871	0.745	0.884	0.765	0.525	0.848	0.724	0.958

#### PM Peak-Hour Volumes



## MONTEREY ROAD & TENNANT AVENUE/EDMUNDSON AVENUE

### AM Peak-Hour Volumes

#### 15-Minute Volumes

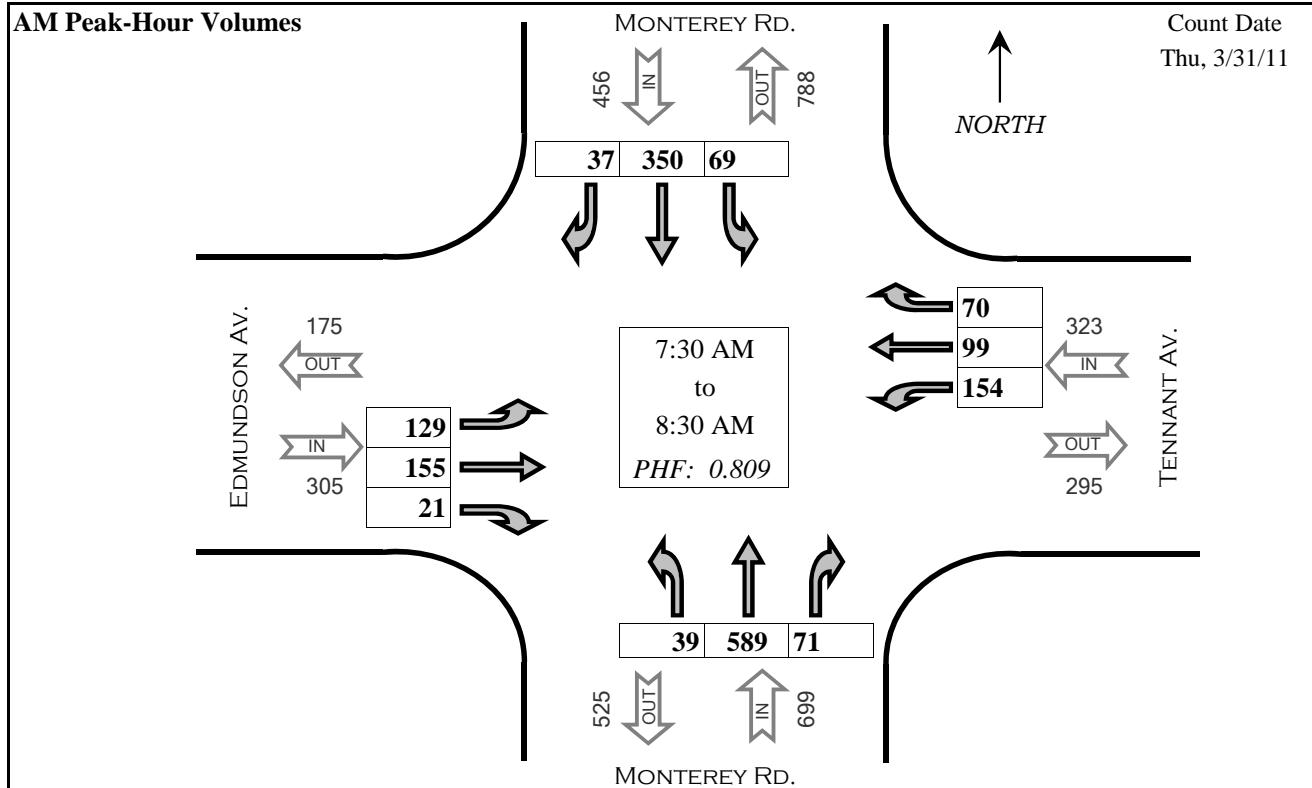
Start Time	Monterey Rd.			Tennant Av.			Monterey Rd.			Edmundson Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	3	41	18	11	10	24	9	71	17	9	62	20	295	
7:15 AM	6	82	12	14	9	28	20	76	10	8	45	28	338	
7:30 AM	3	87	22	13	21	32	24	237	10	7	55	40	551	
7:45 AM	9	95	19	20	34	40	17	158	11	3	27	34	467	
8:00 AM	13	86	21	21	19	47	16	80	9	5	30	24	371	
8:15 AM	12	82	7	16	25	35	14	114	9	6	43	31	394	
8:30 AM	19	59	21	15	18	38	19	124	12	6	52	32	415	
8:45 AM	17	97	33	19	16	44	8	74	11	6	28	37	390	
2-Hr Total	82	629	153	129	152	288	127	934	89	50	342	246	3221	

#### Hourly Volumes

Start Time	Monterey Rd.			Tennant Av.			Monterey Rd.			Edmundson Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	21	305	71	58	74	124	70	542	48	27	189	122	1651	
7:15 AM	31	350	74	68	83	147	77	551	40	23	157	126	1727	
7:30 AM	37	350	69	70	99	154	71	589	39	21	155	129	1783	
7:45 AM	53	322	68	72	96	160	66	476	41	20	152	121	1647	
8:00 AM	61	324	82	71	78	164	57	392	41	23	153	124	1570	

#### Peak-Hour Volume

7:30 AM	37	350	69	70	99	154	71	589	39	21	155	129	1783
Peak-Hour Factor	0.712	0.921	0.784	0.833	0.728	0.819	0.740	0.621	0.886	0.750	0.705	0.806	0.809



## MONTEREY ROAD & TENNANT AVENUE/EDMUNDSON AVENUE

### PM Peak-Hour Volumes

#### 15-Minute Volumes

Start Time	Monterey Rd.			Tennant Av.			Monterey Rd.			Edmundson Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	14	138	43	25	33	101	17	125	21	6	42	52	617	
4:15 PM	25	166	49	21	46	94	24	143	21	1	36	38	664	
4:30 PM	18	162	39	29	69	97	29	122	23	7	37	50	682	
4:45 PM	20	137	53	32	36	75	10	133	14	8	32	33	583	
5:00 PM	13	147	37	31	52	103	18	112	26	9	21	60	629	
5:15 PM	25	162	49	31	68	79	14	93	20	2	28	34	605	
5:30 PM	20	148	45	31	65	75	32	162	33	9	62	48	730	
5:45 PM	32	139	47	32	48	77	17	89	25	5	33	30	574	
2-Hr Total	167	1199	362	232	417	701	161	979	183	47	291	345	5084	

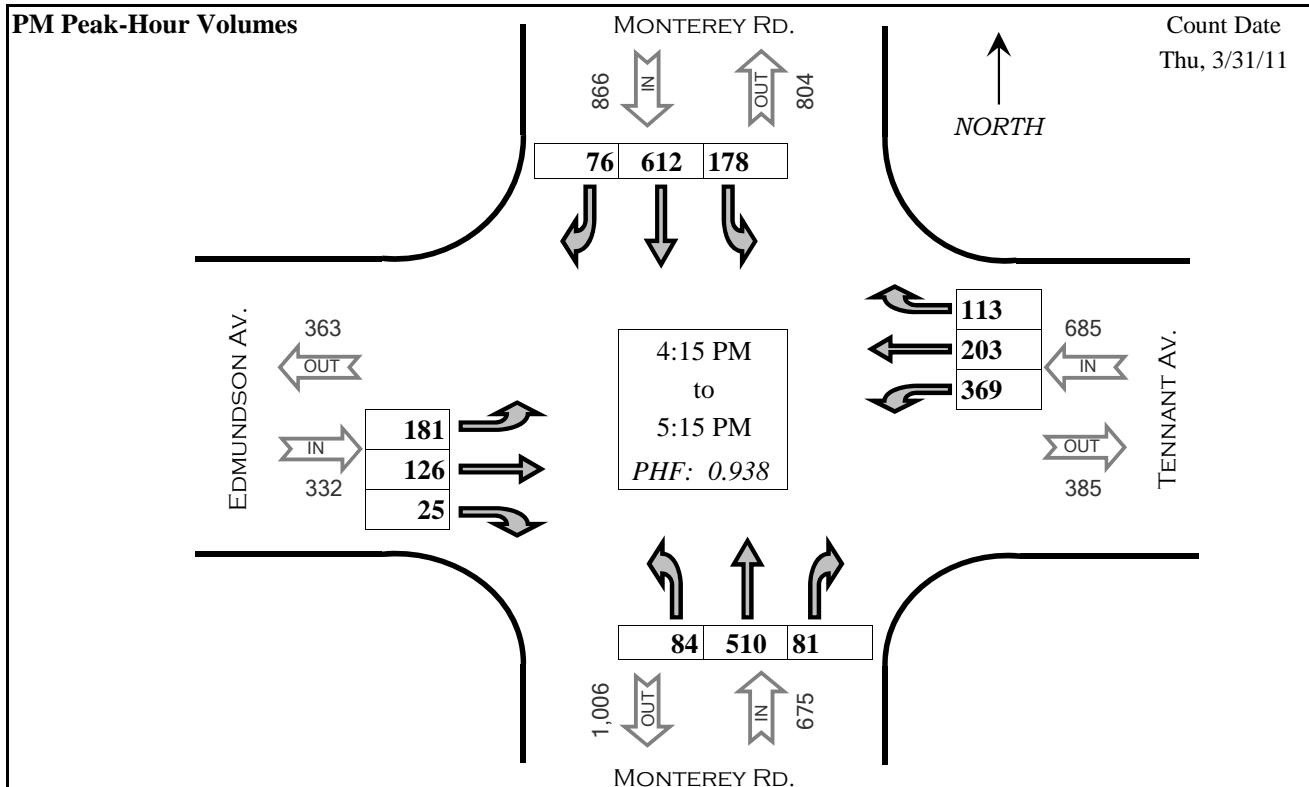
#### Hourly Volumes

Start Time	Monterey Rd.			Tennant Av.			Monterey Rd.			Edmundson Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM	77	603	184	107	184	367	80	523	79	22	147	173	2546	
4:15 PM	76	612	178	113	203	369	81	510	84	25	126	181	2558	
4:30 PM	76	608	178	123	225	354	71	460	83	26	118	177	2499	
4:45 PM	78	594	184	125	221	332	74	500	93	28	143	175	2547	
5:00 PM	90	596	178	125	233	334	81	456	104	25	144	172	2538	

#### Peak-Hour Volume

4:15 PM	76	612	178	113	203	369	81	510	84	25	126	181	2558
Peak-Hour Factor	0.760	0.922	0.840	0.883	0.736	0.896	0.698	0.892	0.808	0.694	0.851	0.754	0.938

#### PM Peak-Hour Volumes



## VINEYARD BOULEVARD & TENNANT AVENUE

### AM Peak-Hour Volumes

#### 15-Minute Volumes

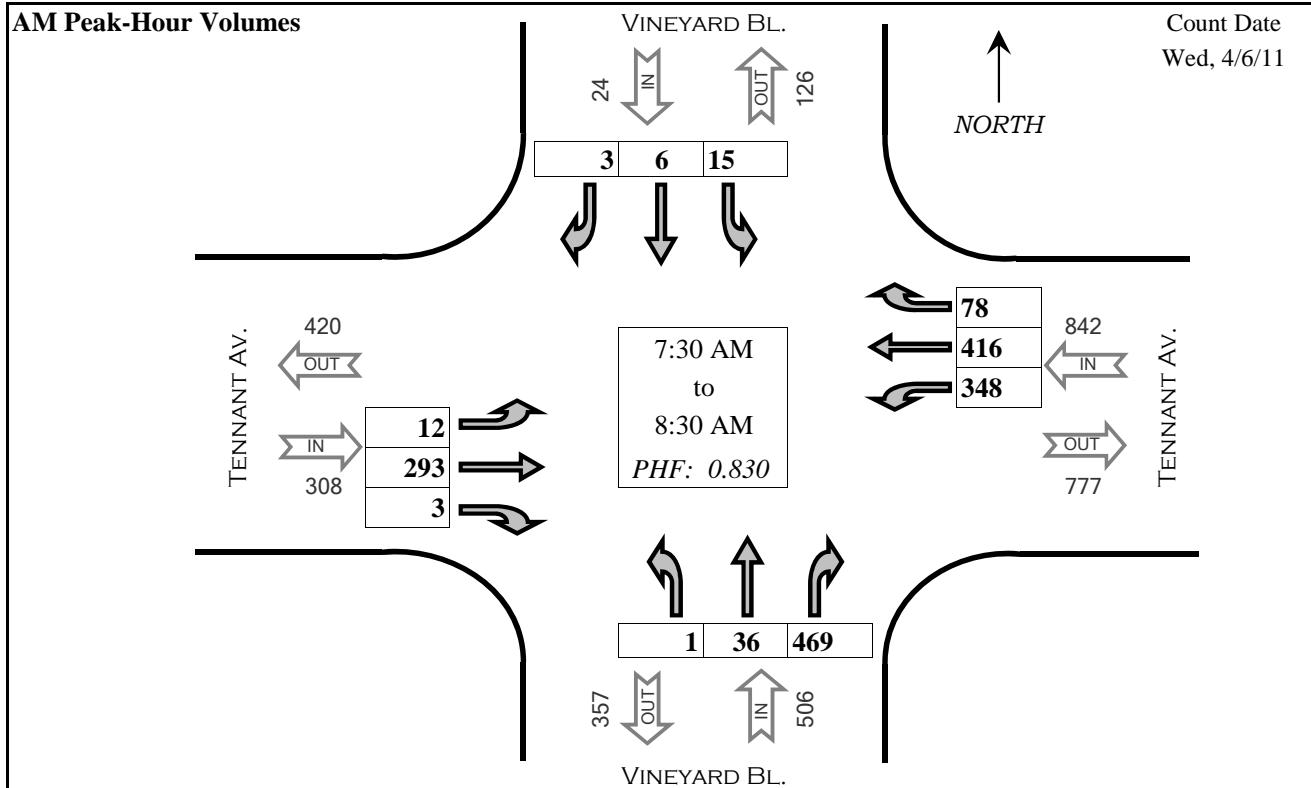
Start Time	Vineyard Bl.			Tennant Av.			Vineyard Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	4	2	3	21	38	44	103	3	2	0	54	2	276	
7:15 AM	1	0	3	15	71	61	120	4	4	1	82	1	363	
7:30 AM	0	3	6	11	105	80	137	9	0	3	44	6	404	
7:45 AM	2	1	4	26	116	140	124	10	1	0	78	4	506	
8:00 AM	1	1	1	19	73	56	104	14	0	0	73	2	344	
8:15 AM	0	1	4	22	122	72	104	3	0	0	98	0	426	
8:30 AM	1	4	8	22	93	74	98	6	0	1	84	4	395	
8:45 AM	3	1	9	24	116	54	95	3	1	1	90	8	405	
2-Hr Total	12	13	38	160	734	581	885	52	8	6	603	27	3119	

#### Hourly Volumes

Start Time	Vineyard Bl.			Tennant Av.			Vineyard Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	7	6	16	73	330	325	484	26	7	4	258	13	1549	
7:15 AM	4	5	14	71	365	337	485	37	5	4	277	13	1617	
7:30 AM	3	6	15	78	416	348	469	36	1	3	293	12	1680	
7:45 AM	4	7	17	89	404	342	430	33	1	1	333	10	1671	
8:00 AM	5	7	22	87	404	256	401	26	1	2	345	14	1570	

#### Peak-Hour Volume

7:30 AM	3	6	15	78	416	348	469	36	1	3	293	12	1680
Peak-Hour Factor	0.375	0.500	0.625	0.750	0.852	0.621	0.856	0.643	0.250	0.250	0.747	0.500	0.830



## VINEYARD BOULEVARD & TENNANT AVENUE

### PM Peak-Hour Volumes

#### 15-Minute Volumes

Start Time	Vineyard Bl.			Tennant Av.			Vineyard Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	3	5	13	10	156	86	107	3	6	4	131	5	529	
4:15 PM	2	6	18	3	197	103	83	0	1	1	113	2	529	
4:30 PM	7	7	38	10	186	120	93	1	3	13	127	1	606	
4:45 PM	4	3	15	6	209	118	104	1	3	1	125	1	590	
5:00 PM	7	4	21	5	192	113	147	1	1	1	124	6	622	
5:15 PM	7	8	19	8	201	138	87	5	10	3	85	3	574	
5:30 PM	4	5	22	5	182	124	110	1	2	1	132	19	607	
5:45 PM	6	2	18	5	162	109	84	0	2	6	125	3	522	
2-Hr Total	40	40	164	52	1485	911	815	12	28	30	962	40	4579	

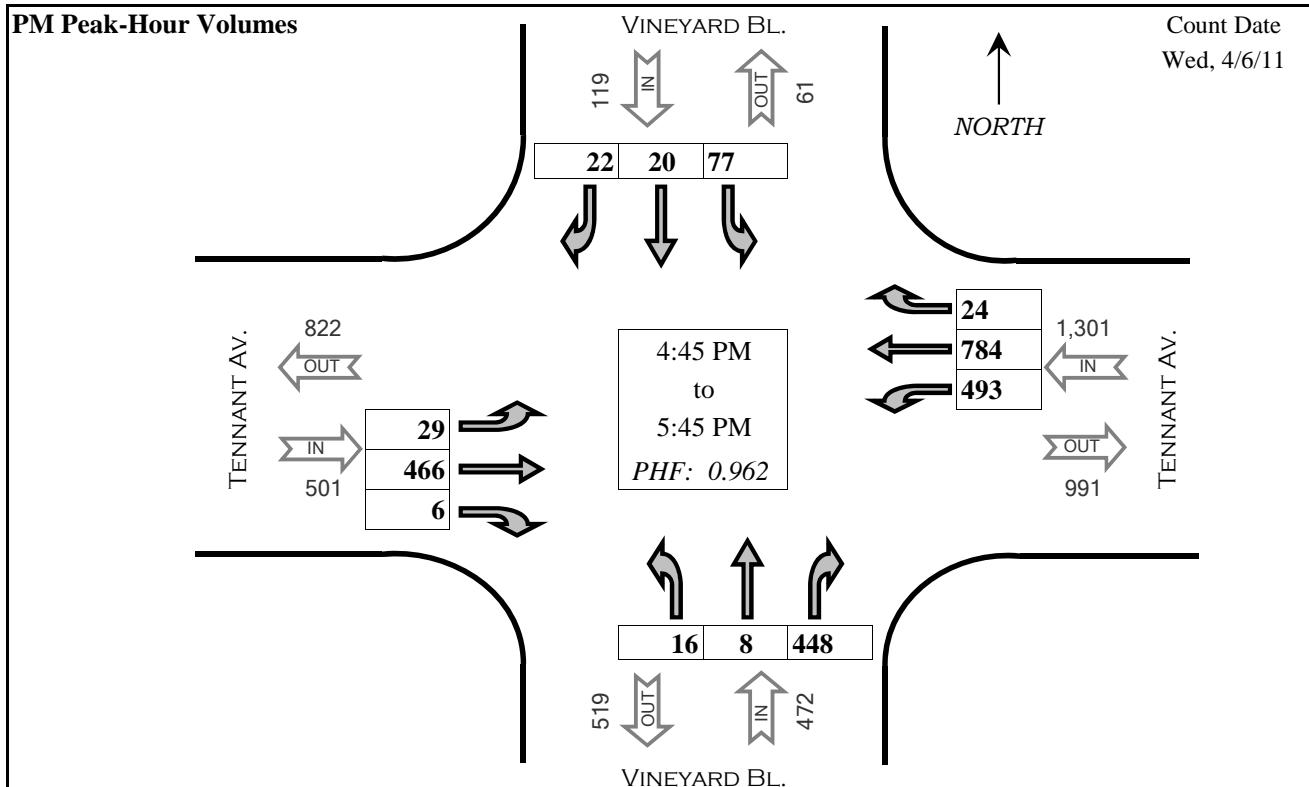
#### Hourly Volumes

Start Time	Vineyard Bl.			Tennant Av.			Vineyard Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM	16	21	84	29	748	427	387	5	13	19	496	9	2254	
4:15 PM	20	20	92	24	784	454	427	3	8	16	489	10	2347	
4:30 PM	25	22	93	29	788	489	431	8	17	18	461	11	2392	
4:45 PM	22	20	77	24	784	493	448	8	16	6	466	29	2393	
5:00 PM	24	19	80	23	737	484	428	7	15	11	466	31	2325	

#### Peak-Hour Volume

4:45 PM	22	20	77	24	784	493	448	8	16	6	466	29	2393
Peak-Hour Factor	0.786	0.625	0.875	0.750	0.938	0.893	0.762	0.400	0.400	0.500	0.883	0.382	0.962

#### PM Peak-Hour Volumes



## BUTTERFIELD BOULEVARD & TENNANT AVENUE

### AM Peak-Hour Volumes

#### 15-Minute Volumes

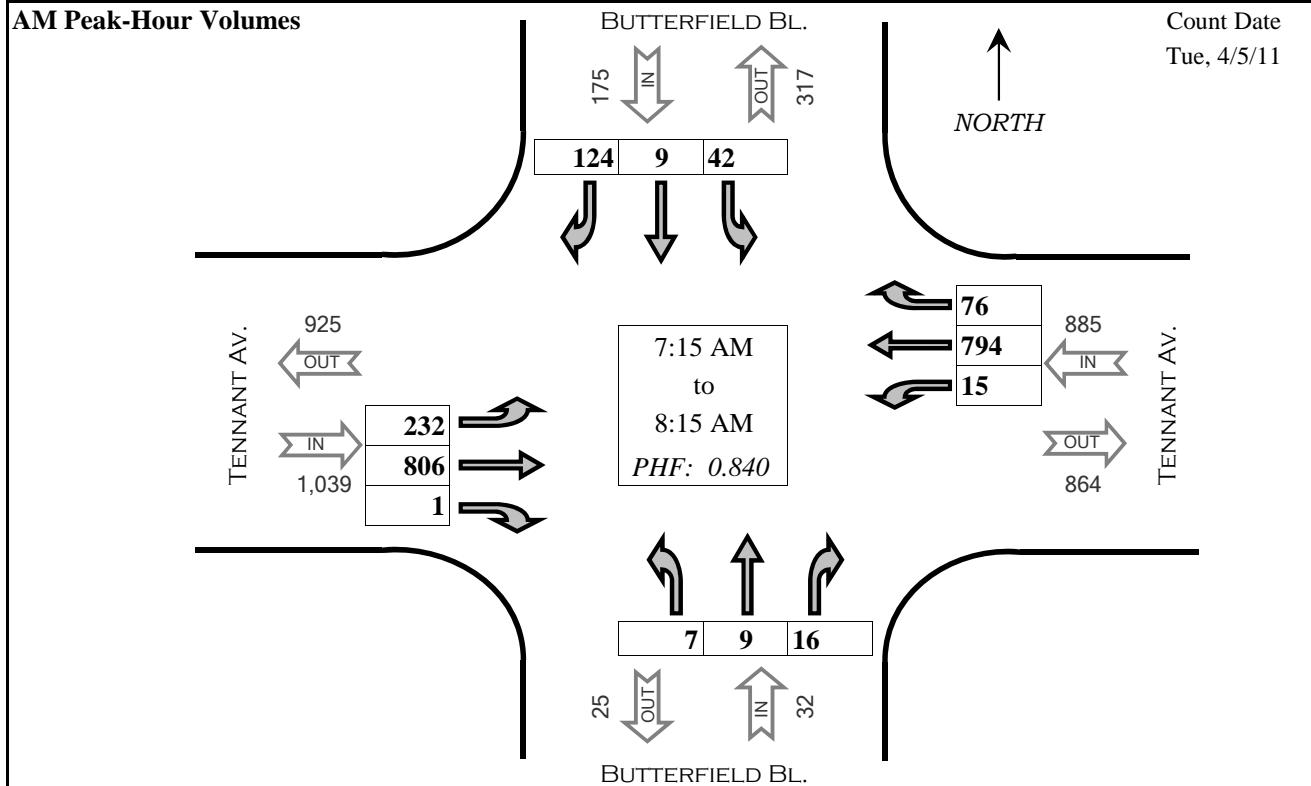
Start Time	Butterfield Bl.			Tennant Av.			Butterfield Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	15	0	6	17	108	0	2	0	3	2	197	43	393	
7:15 AM	17	1	9	18	146	2	6	0	0	0	187	35	421	
7:30 AM	36	1	11	14	167	2	5	3	0	0	213	50	502	
7:45 AM	35	3	11	30	255	9	1	3	1	1	198	87	634	
8:00 AM	36	4	11	14	226	2	4	3	6	0	208	60	574	
8:15 AM	20	3	10	11	173	12	4	0	2	0	146	40	421	
8:30 AM	21	2	18	13	133	6	4	3	2	0	128	41	371	
8:45 AM	20	2	16	14	164	7	5	1	5	10	136	38	418	
2-Hr Total	200	16	92	131	1372	40	31	13	19	13	1413	394	3734	

#### Hourly Volumes

Start Time	Butterfield Bl.			Tennant Av.			Butterfield Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	103	5	37	79	676	13	14	6	4	3	795	215	1950	
7:15 AM	124	9	42	76	794	15	16	9	7	1	806	232	2131	
7:30 AM	127	11	43	69	821	25	14	9	9	1	765	237	2131	
7:45 AM	112	12	50	68	787	29	13	9	11	1	680	228	2000	
8:00 AM	97	11	55	52	696	27	17	7	15	10	618	179	1784	

#### Peak-Hour Volume

7:15 AM	124	9	42	76	794	15	16	9	7	1	806	232	2131
Peak-Hour Factor	0.861	0.563	0.955	0.633	0.778	0.417	0.667	0.750	0.292	0.250	0.946	0.667	0.840



## BUTTERFIELD BOULEVARD & TENNANT AVENUE

### PM Peak-Hour Volumes

#### 15-Minute Volumes

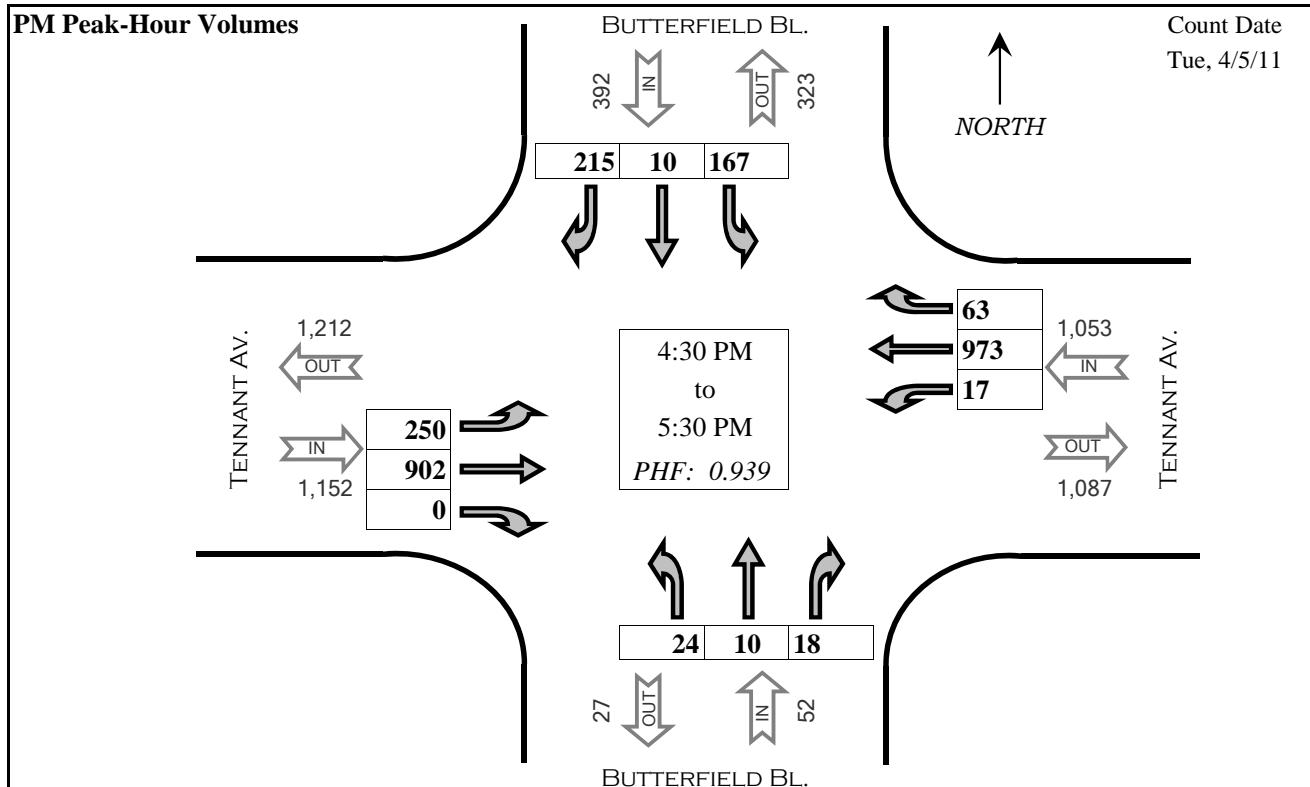
Start Time	Butterfield Bl.			Tennant Av.			Butterfield Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	61	7	33	10	226	11	4	3	3	0	206	63	627	
4:15 PM	49	3	30	11	288	10	4	4	7	0	161	73	640	
4:30 PM	51	4	39	10	205	6	4	2	8	0	196	59	584	
4:45 PM	61	0	39	24	256	5	6	0	6	0	237	71	705	
5:00 PM	57	2	50	14	256	2	5	3	4	0	219	56	668	
5:15 PM	46	4	39	15	256	4	3	5	6	0	250	64	692	
5:30 PM	52	2	28	16	201	4	5	2	2	0	192	59	563	
5:45 PM	57	5	25	8	250	5	1	1	3	0	206	50	611	
2-Hr Total	434	27	283	108	1938	47	32	20	39	0	1667	495	5090	

#### Hourly Volumes

Start Time	Butterfield Bl.			Tennant Av.			Butterfield Bl.			Tennant Av.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM	222	14	141	55	975	32	18	9	24	0	800	266	2556	
4:15 PM	218	9	158	59	1005	23	19	9	25	0	813	259	2597	
4:30 PM	215	10	167	63	973	17	18	10	24	0	902	250	2649	
4:45 PM	216	8	156	69	969	15	19	10	18	0	898	250	2628	
5:00 PM	212	13	142	53	963	15	14	11	15	0	867	229	2534	

#### Peak-Hour Volume

4:30 PM	215	10	167	63	973	17	18	10	24	0	902	250	2649
Peak-Hour Factor	0.881	0.625	0.835	0.656	0.950	0.708	0.750	0.500	0.750	--	0.902	0.880	0.939



## US 101 SOUTHBOUND RAMPS & TENNANT AVENUE

### AM Peak-Hour Volumes

#### 15-Minute Volumes

Start Time	US 101 SB Off			Tennant Av			US 101 SB On			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	73	0	8	0	92	18	0	0	0	34	213	0	438	
7:15 AM	80	0	6	0	84	12	0	0	0	24	148	0	354	
7:30 AM	109	0	6	0	141	10	0	0	0	43	196	0	505	
7:45 AM	140	0	13	0	147	9	0	0	0	40	189	0	538	
8:00 AM	97	0	9	0	99	12	0	0	0	35	168	0	420	
8:15 AM	99	0	11	0	99	14	0	0	0	63	145	0	431	
8:30 AM	79	0	9	0	91	16	0	0	0	50	149	0	394	
8:45 AM	93	0	12	0	81	8	0	0	0	33	105	0	332	
2-Hr Total	770	0	74	0	834	99	0	0	0	322	1313	0	3412	

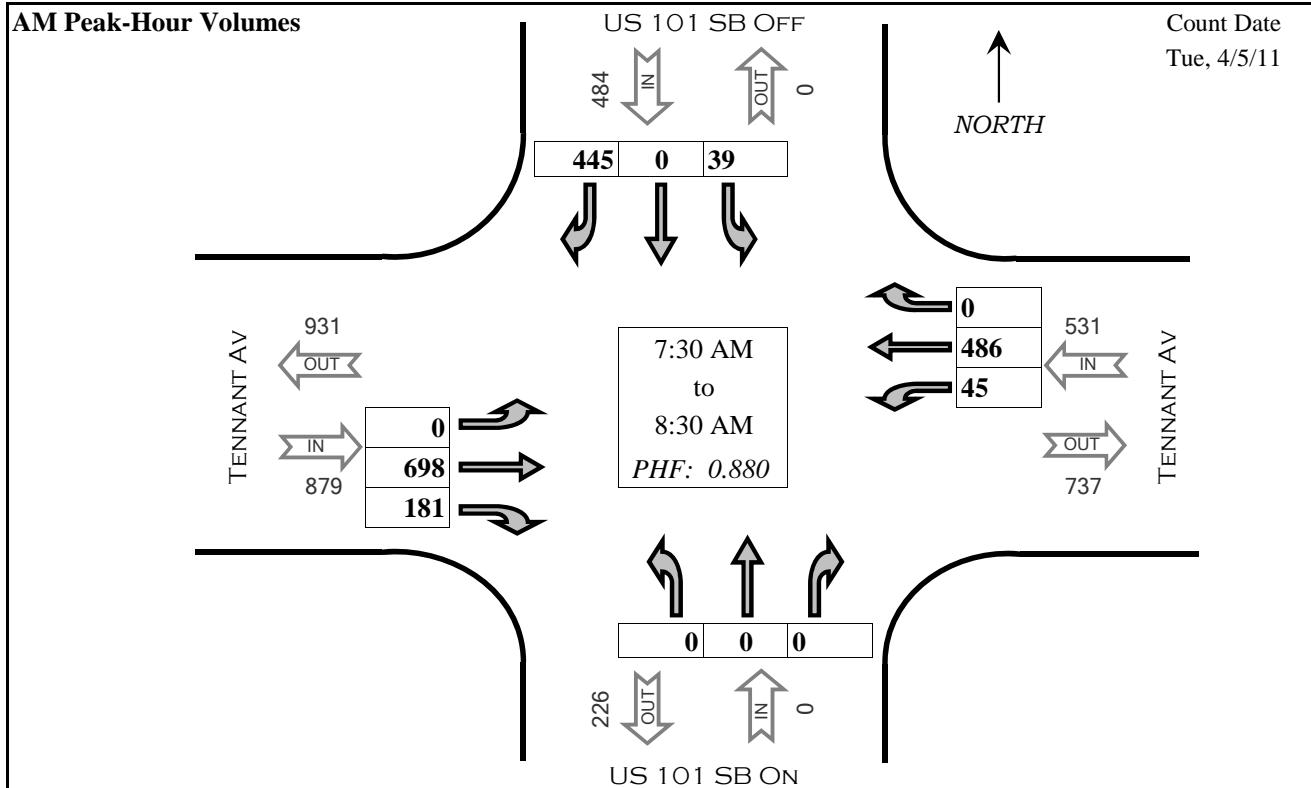
#### Hourly Volumes

Start Time	US 101 SB Off			Tennant Av			US 101 SB On			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	402	0	33	0	464	49	0	0	0	141	746	0	1835	
7:15 AM	426	0	34	0	471	43	0	0	0	142	701	0	1817	
7:30 AM	445	0	39	0	486	45	0	0	0	181	698	0	1894	
7:45 AM	415	0	42	0	436	51	0	0	0	188	651	0	1783	
8:00 AM	368	0	41	0	370	50	0	0	0	181	567	0	1577	

#### Peak-Hour Volume

7:30 AM	445	0	39	0	486	45	0	0	0	181	698	0	1894
Peak-Hour Factor	0.795	--	0.750	--	0.827	0.804	--	--	--	0.718	0.890	--	0.880

#### AM Peak-Hour Volumes



## US 101 SOUTHBOUND RAMPS & TENNANT AVENUE

### PM Peak-Hour Volumes

#### 15-Minute Volumes

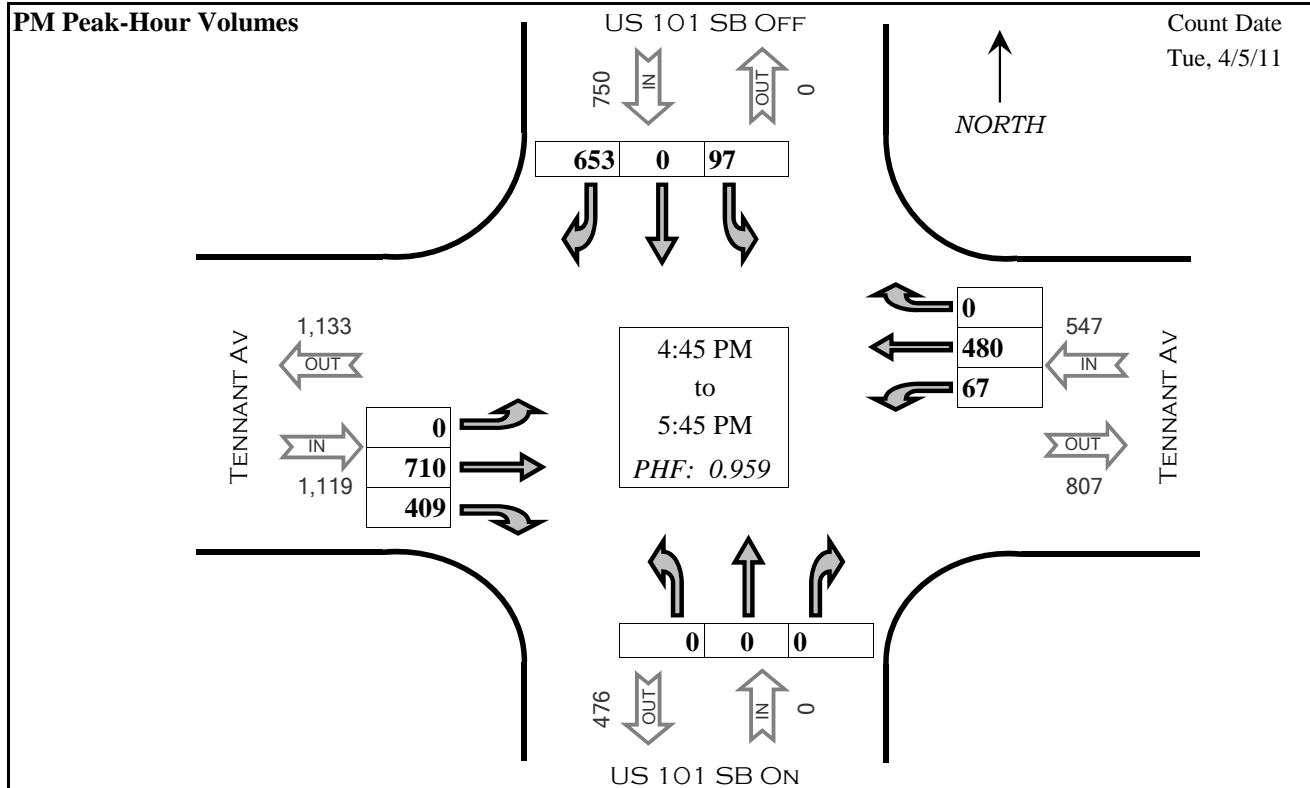
Start Time	US 101 SB Off			Tennant Av			US 101 SB On			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	131	0	10	0	115	14	0	0	0	109	148	0	527	
4:15 PM	179	0	10	0	122	18	0	0	0	82	141	0	552	
4:30 PM	165	0	22	0	121	12	0	0	0	109	155	0	584	
4:45 PM	203	0	30	0	115	15	0	0	0	90	158	0	611	
5:00 PM	123	0	23	0	126	20	0	0	0	111	212	0	615	
5:15 PM	143	0	21	0	103	18	0	0	0	106	169	0	560	
5:30 PM	184	0	23	0	136	14	0	0	0	102	171	0	630	
5:45 PM	130	0	19	0	93	7	0	0	0	76	141	0	466	
2-Hr Total	1258	0	158	0	931	118	0	0	0	785	1295	0	4545	

#### Hourly Volumes

Start Time	US 101 SB Off			Tennant Av			US 101 SB On			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM	678	0	72	0	473	59	0	0	0	390	602	0	2274	
4:15 PM	670	0	85	0	484	65	0	0	0	392	666	0	2362	
4:30 PM	634	0	96	0	465	65	0	0	0	416	694	0	2370	
4:45 PM	653	0	97	0	480	67	0	0	0	409	710	0	2416	
5:00 PM	580	0	86	0	458	59	0	0	0	395	693	0	2271	

#### Peak-Hour Volume

4:45 PM	653	0	97	0	480	67	0	0	0	409	710	0	2416
Peak-Hour Factor	0.804	--	0.808	--	0.882	0.838	--	--	--	0.921	0.837	--	0.959



## US 101 NORTHBOUND RAMPS & TENNANT AVENUE

### AM Peak-Hour Volumes

#### 15-Minute Volumes

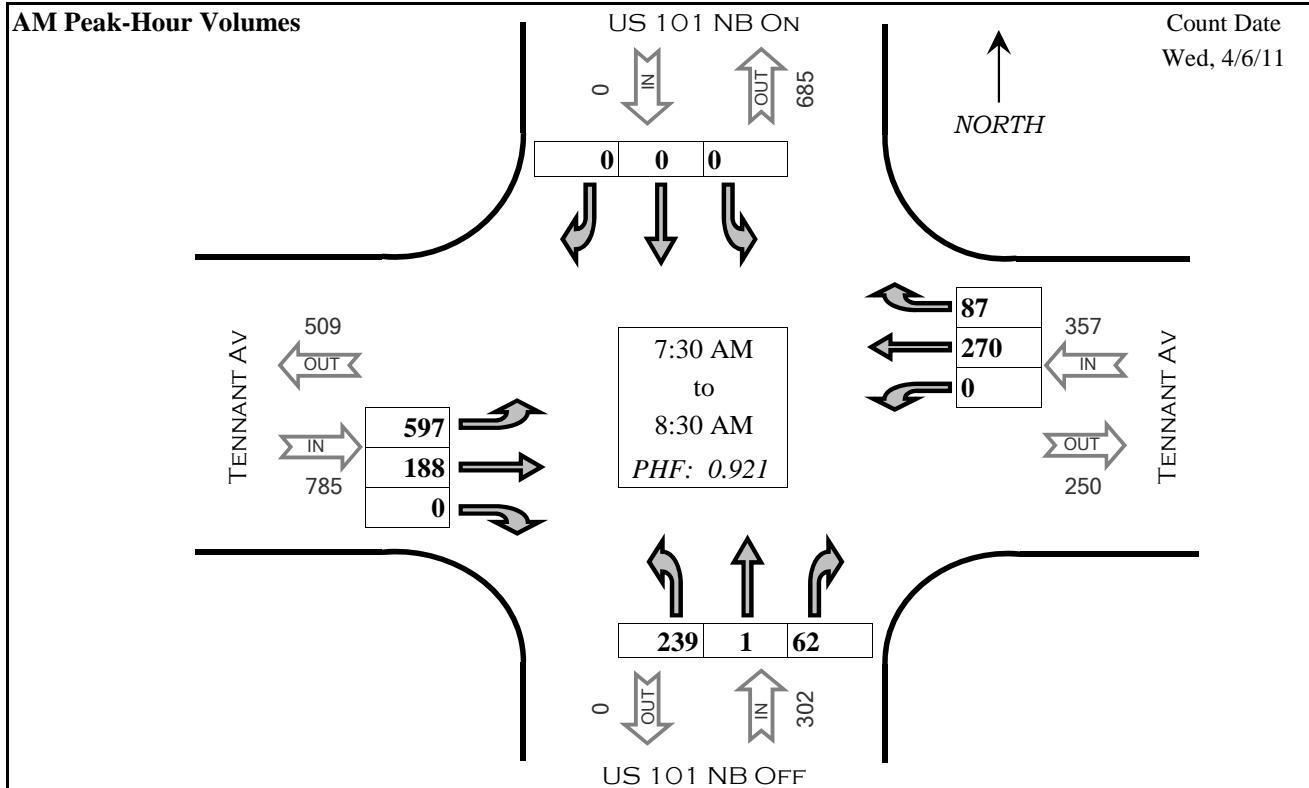
Start Time	US 101 NB On			Tennant Av			US 101 NB Off			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	0	0	0	25	65	0	28	1	58	0	36	185	398	
7:15 AM	0	0	0	6	49	0	16	3	48	0	30	140	292	
7:30 AM	0	0	0	22	69	0	18	0	59	0	34	155	357	
7:45 AM	0	0	0	20	93	0	17	1	66	0	39	156	392	
8:00 AM	0	0	0	22	50	0	10	0	42	0	55	156	335	
8:15 AM	0	0	0	23	58	0	17	0	72	0	60	130	360	
8:30 AM	0	0	0	15	61	0	14	0	62	0	50	116	318	
8:45 AM	0	0	0	15	71	0	15	2	48	0	34	85	270	
2-Hr Total	0	0	0	148	516	0	135	7	455	0	338	1123	2722	

#### Hourly Volumes

Start Time	US 101 NB On			Tennant Av			US 101 NB Off			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	0	0	0	73	276	0	79	5	231	0	139	636	1439	
7:15 AM	0	0	0	70	261	0	61	4	215	0	158	607	1376	
7:30 AM	0	0	0	87	270	0	62	1	239	0	188	597	1444	
7:45 AM	0	0	0	80	262	0	58	1	242	0	204	558	1405	
8:00 AM	0	0	0	75	240	0	56	2	224	0	199	487	1283	

#### Peak-Hour Volume

7:30 AM	0	0	0	87	270	0	62	1	239	0	188	597	1444
Peak-Hour Factor	--	--	--	0.946	0.726	--	0.861	0.250	0.830	--	0.783	0.957	0.921



## US 101 NORTHBOUND RAMPS & TENNANT AVENUE

### PM Peak-Hour Volumes

#### 15-Minute Volumes

Start Time	US 101 NB On			Tennant Av			US 101 NB Off			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	0	0	0	14	58	0	21	0	49	0	74	79	295	
4:15 PM	0	0	0	15	52	0	16	1	61	0	67	75	287	
4:30 PM	0	0	0	16	84	0	23	1	73	0	99	113	409	
4:45 PM	0	0	0	10	66	0	23	1	84	0	96	84	364	
5:00 PM	0	0	0	17	66	0	36	1	54	0	75	111	360	
5:15 PM	0	0	0	11	44	0	24	1	59	0	78	78	295	
5:30 PM	0	0	0	16	83	0	26	0	58	0	90	121	394	
5:45 PM	0	0	0	8	40	0	20	1	65	0	81	88	303	
2-Hr Total	0	0	0	107	493	0	189	6	503	0	660	749	2707	

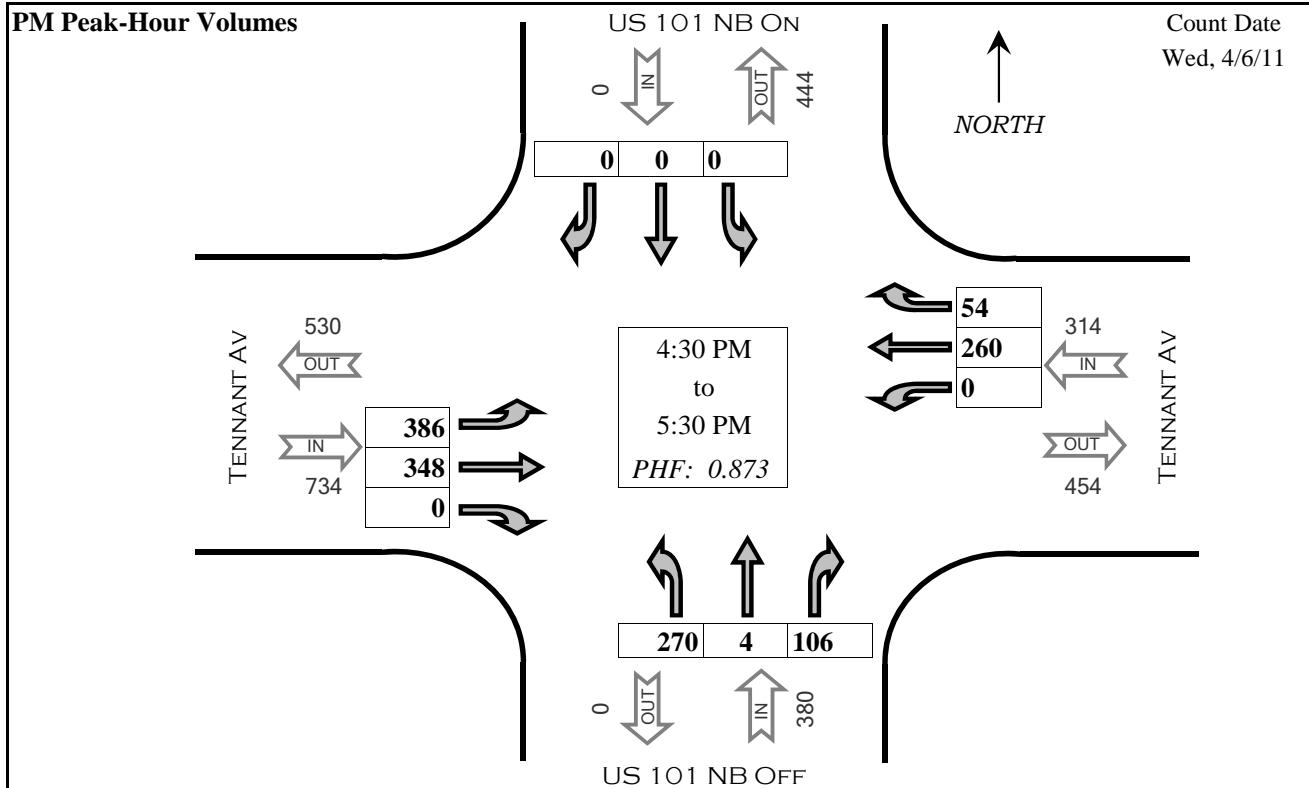
#### Hourly Volumes

Start Time	US 101 NB On			Tennant Av			US 101 NB Off			Tennant Av			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM	0	0	0	55	260	0	83	3	267	0	336	351	1355	
4:15 PM	0	0	0	58	268	0	98	4	272	0	337	383	1420	
4:30 PM	0	0	0	54	260	0	106	4	270	0	348	386	1428	
4:45 PM	0	0	0	54	259	0	109	3	255	0	339	394	1413	
5:00 PM	0	0	0	52	233	0	106	3	236	0	324	398	1352	

#### Peak-Hour Volume

4:30 PM	0	0	0	54	260	0	106	4	270	0	348	386	1428
Peak-Hour Factor	--	--	--	0.794	0.774	--	0.736	1.000	0.804	--	0.879	0.854	0.873

#### PM Peak-Hour Volumes





Project ID: Diamond Creek

Count Date: Thu, 4/7/11

Weather: overcast

## Monterey Road & CDF Driveway

### AM Peak-Hour Volumes

#### 15-Minute Volumes

Start Time	Monterey Rd.			CDF Dwy.			Monterey Rd.			Commercial Dwys.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
7:00 AM	0	57	1	0	0	0	2	183	0	0	0	0	243	
7:15 AM	0	64	0	0	0	0	2	230	0	0	0	0	296	
7:30 AM	0	125	4	1	0	1	0	306	0	0	0	0	437	
7:45 AM	0	173	3	1	0	0	0	415	0	0	0	0	592	
8:00 AM	0	103	2	3	0	0	1	170	0	1	0	0	280	
8:15 AM	0	120	3	3	0	1	1	181	0	0	0	0	309	
8:30 AM	1	91	2	1	0	0	0	1	173	0	0	0	269	
8:45 AM	3	83	1	0	0	0	0	170	0	0	0	0	257	
2-Hr Total	4	816	16	9	0	2	7	1828	0	1	0	0	2683	

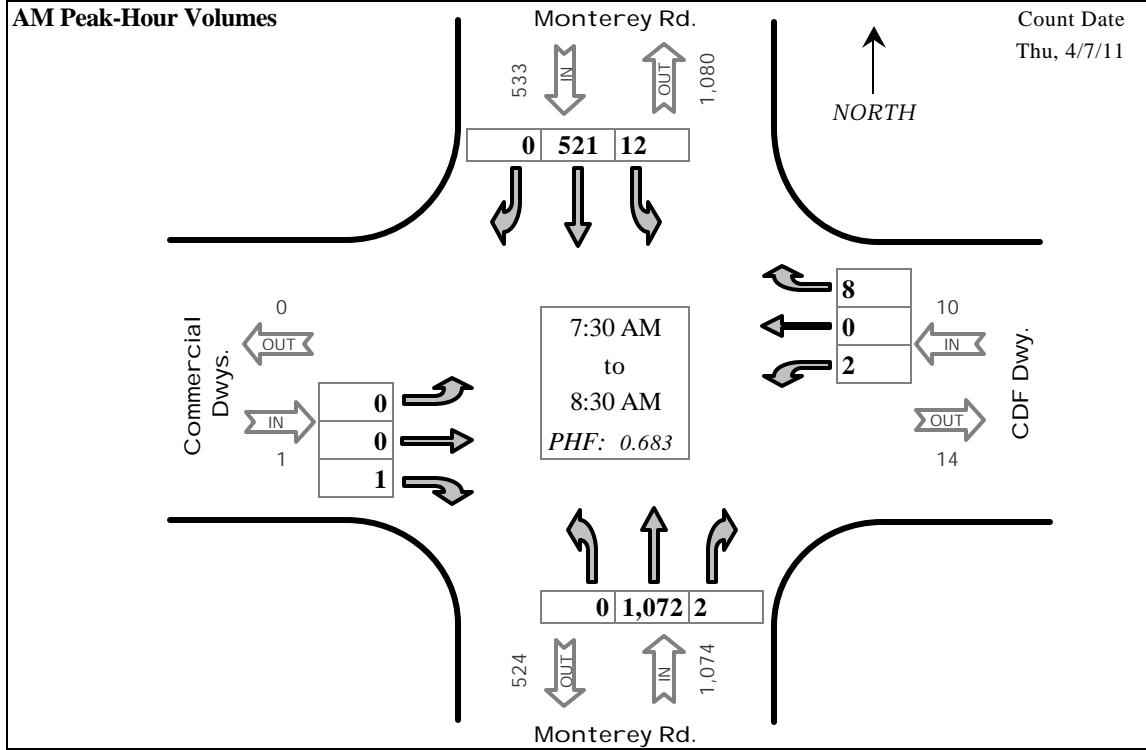
#### Hourly Volumes

Start Time	Monterey Rd.			CDF Dwy.			Monterey Rd.			Commercial Dwys.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
7:00 AM	0	419	8	2	0	1	4	1134	0	0	0	0	1568	
7:15 AM	0	465	9	5	0	1	3	1121	0	1	0	0	1605	
7:30 AM	0	521	12	8	0	2	2	1072	0	1	0	0	1618	
7:45 AM	1	487	10	8	0	1	3	939	0	1	0	0	1450	
8:00 AM	4	397	8	7	0	1	3	694	0	1	0	0	1115	

#### Peak-Hour Volume

7:30 AM	0	521	12	8	0	2	2	1072	0	1	0	0	1618
Peak-Hour Factor	--	0.753	0.750	0.667	--	0.500	0.500	0.646	--	0.250	--	--	0.683

#### AM Peak-Hour Volumes





Project ID: Diamond Creek  
Count Date: Thu, 4/14/11  
Weather: clear

## Monterey Road & CDF Driveway

### PM Peak-Hour Volumes

#### 15-Minute Volumes

Start Time	Monterey Rd.			CDF Dwy.			Monterey Rd.			Commercial Dwys.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	SBR	SBT	SBL	WBR	WBT	WBL	NBR	NBT	NBL	EBR	EBT	EBL		
4:00 PM	2	241	6	1	0	1	0	148	1	3	0	3	406	
4:15 PM	4	225	9	5	0	1	0	180	0	4	0	0	428	
4:30 PM	2	256	4	0	0	3	0	175	1	2	0	1	444	
4:45 PM	2	213	3	0	0	0	1	132	1	1	0	0	353	
5:00 PM	1	284	5	2	0	1	1	149	0	5	0	7	455	
5:15 PM	1	238	6	1	0	1	0	182	1	2	0	0	432	
5:30 PM	2	207	3	0	0	0	0	183	1	1	0	1	398	
5:45 PM	1	261	5	0	0	2	0	150	0	1	0	0	420	
2-Hr Total	15	1925	41	9	0	9	2	1299	5	19	0	12	3336	

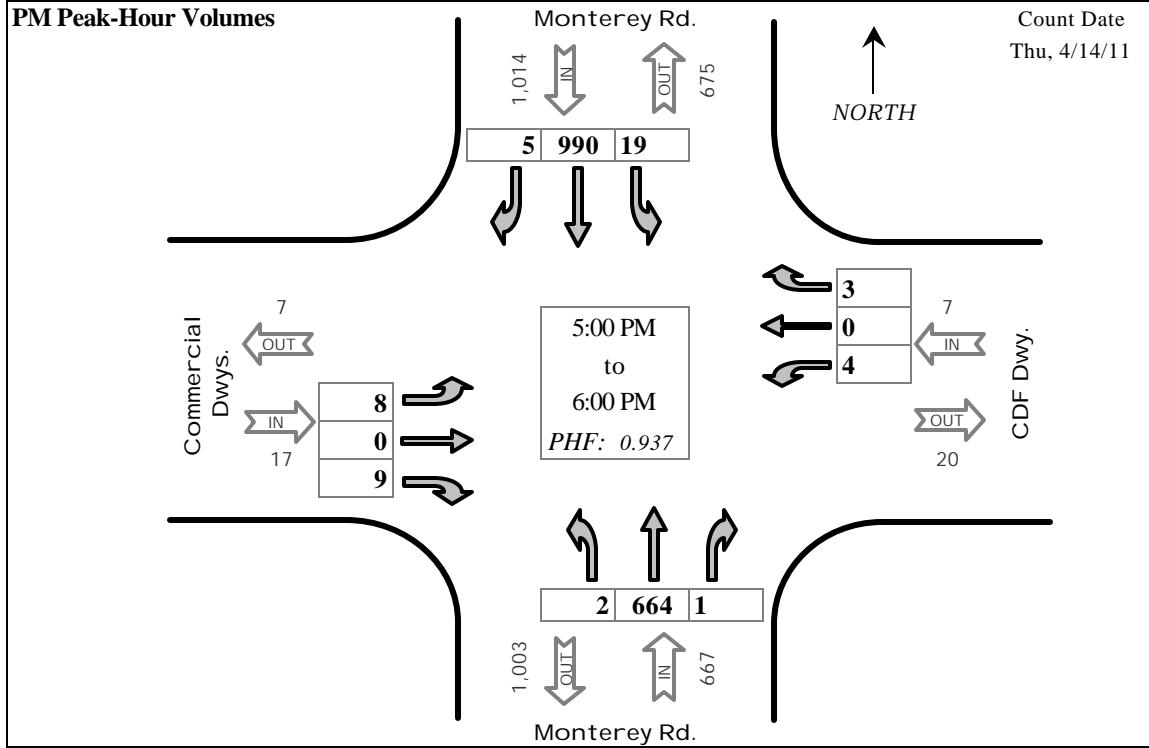
#### Hourly Volumes

Start Time	Monterey Rd.			CDF Dwy.			Monterey Rd.			Commercial Dwys.			Int. Total	
	Southbound			Westbound			Northbound			Eastbound				
	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left		
4:00 PM	10	935	22	6	0	5	1	635	3	10	0	4	1631	
4:15 PM	9	978	21	7	0	5	2	636	2	12	0	8	1680	
4:30 PM	6	991	18	3	0	5	2	638	3	10	0	8	1684	
4:45 PM	6	942	17	3	0	2	2	646	3	9	0	8	1638	
5:00 PM	5	990	19	3	0	4	1	664	2	9	0	8	1705	

#### Peak-Hour Volume

5:00 PM	5	990	19	3	0	4	1	664	2	9	0	8	1705
Peak-Hour Factor	0.625	0.871	0.792	0.375	--	0.500	0.250	0.907	0.500	0.450	--	0.286	0.937

#### PM Peak-Hour Volumes



## **Appendix B**

### **Volume Summary**

1 101

Intersection Name: Monterey Road & Watsonville Road  
 Peak Hour: AM Date of Analysis: 5/5/11  
 Scenario: Count Date: 3/29/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	112	318	0	0	0	0	0	571	50	99	0	426	1,576
Adjusted Existing Conditions	112	318	0	0	0	0	0	571	50	99	0	426	1,576
Residential Project Trips	1	1	0	0	0	0	0	0	0	0	0	0	2
Retail Project Trips	2	0	0	0	0	0	0	0	0	0	0	0	4
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	3	1	0	0	0	0	0	0	0	0	0	0	6
Existing Plus Project Conditions	115	319	0	0	0	0	0	571	50	99	0	428	1,582
2007 Model Existing Conditions	330	241	0	0	0	0	0	973	51	87	0	542	2,224
2015 Model Cumulative Conditions	92	283	15	17	372	56	384	1,009	47	76	513	178	3,042
Adjusted 2015 Cumulative No Project Conditions	31	360	15	17	372	56	384	607	50	99	513	140	2,644
Adjusted 2015 Cumulative Plus Project Conditions	34	361	15	17	372	56	384	607	50	99	513	142	2,650

2 102

Intersection Name: Monterey Road & Vineyard Boulevard  
 Peak Hour: AM Date of Analysis: 5/5/11  
 Scenario: Count Date: 3/30/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	100	271	50	8	86	139	345	472	79	54	262	193	2,059
Adjusted Existing Conditions	100	271	50	8	86	139	345	472	79	54	262	193	2,059
Residential Project Trips	0	2	0	0	0	5	25	12	1	0	0	0	45
Retail Project Trips	0	4	0	0	0	1	1	4	1	1	0	0	12
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	6	0	0	0	6	26	16	2	1	0	0	57
Existing Plus Project Conditions	100	277	50	8	86	145	371	488	81	55	262	193	2,116
2007 Model Existing Conditions	104	271	2	0	77	288	410	1,004	100	41	134	297	2,728
2015 Model Cumulative Conditions	114	281	2	0	47	51	148	961	96	60	107	298	2,165
Adjusted 2015 Cumulative No Project Conditions	110	281	50	8	86	25	125	452	79	73	262	194	1,744
Adjusted 2015 Cumulative Plus Project Conditions	110	287	50	8	86	31	151	468	81	74	262	194	1,801

3 103

Intersection Name: Monterey Road & Tenant Avenue  
 Peak Hour: AM Date of Analysis: 5/5/11  
 Scenario: Count Date: 3/31/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	37	350	69	70	99	154	71	589	39	21	155	129	1,783
Adjusted Existing Conditions	37	350	69	70	99	154	71	589	39	21	155	129	1,783
Residential Project Trips	0	1	0	0	0	2	8	3	1	0	0	0	15
Retail Project Trips	0	4	0	0	0	0	0	4	0	0	0	0	8
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	5	0	0	0	2	8	7	1	0	0	0	23
Existing Plus Project Conditions	37	355	69	70	99	156	79	596	40	21	155	129	1,806
2007 Model Existing Conditions	49	358	135	84	98	57	86	980	88	41	234	123	2,333
2015 Model Cumulative Conditions	54	371	147	95	92	54	7	1,031	81	47	208	126	2,313
Adjusted 2015 Cumulative No Project Conditions	42	363	81	81	99	146	6	640	39	27	155	132	1,811
Adjusted 2015 Cumulative Plus Project Conditions	42	368	81	81	99	148	14	647	40	27	155	132	1,834

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104

Intersection Name: Vineyard Boulevard & Tenant Avenue  
 Peak Hour: AM Date of Analysis: 5/5/11  
 Scenario: Count Date: 4/6/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	3	6	15	78	416	348	469	36	1	3	293	12	1,680
Adjusted Existing Conditions	3	6	15	78	416	348	469	36	1	3	293	12	1,680
Residential Project Trips	0	0	0	0	2	5	25	1	0	0	8	0	41
Retail Project Trips	0	0	0	0	0	1	1	0	0	0	0	0	2
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	2	6	26	1	0	0	8	0	43
Existing Plus Project Conditions	3	6	15	78	418	354	495	37	1	3	301	12	1,723
2007 Model Existing Conditions	6	7	30	44	285	424	468	37	30	41	436	15	1,823
2015 Model Cumulative Conditions	5	7	30	37	258	151	188	43	33	46	348	8	1,154
Adjusted 2015 Cumulative No Project Conditions	3	6	15	78	377	124	188	42	4	8	234	12	1,091
Adjusted 2015 Cumulative Plus Project Conditions	3	6	15	78	379	130	214	43	4	8	242	12	1,134

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105

Intersection Name: Butterfield Boulevard & Tenant Avenue  
 Peak Hour: AM Date of Analysis: 5/5/11  
 Scenario: Count Date: 4/5/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	124	9	42	76	794	15	16	9	7	1	806	232	2,131
Adjusted Existing Conditions	124	9	42	76	794	15	16	9	7	1	806	232	2,131
Residential Project Trips	0	0	0	0	6	0	0	0	0	0	32	1	39
Retail Project Trips	0	0	0	0	1	0	0	0	0	0	1	0	2
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	7	0	0	0	0	0	33	1	41
Existing Plus Project Conditions	124	9	42	76	801	15	16	9	7	1	839	233	2,172
2007 Model Existing Conditions	40	0	87	99	774	0	0	0	0	0	901	31	1,932
2015 Model Cumulative Conditions	50	62	143	333	447	381	505	384	28	4	565	26	2,928
Adjusted 2015 Cumulative No Project Conditions	134	71	98	310	459	396	521	393	35	5	505	232	3,159
Adjusted 2015 Cumulative Plus Project Conditions	134	71	98	310	466	396	521	393	35	5	538	233	3,200

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106

Intersection Name: US 101 SB Ramps & Tenant Avenue  
 Peak Hour: AM Date of Analysis: 5/5/11  
 Scenario: Count Date: 4/5/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	445	0	39	0	486	45	0	0	0	181	698	0	1,894
Adjusted Existing Conditions	445	0	39	0	486	45	0	0	0	181	698	0	1,894
Residential Project Trips	6	0	0	0	1	0	0	0	0	4	28	0	39
Retail Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	6	0	0	0	1	0	0	0	0	4	28	0	39
Existing Plus Project Conditions	451	0	39	0	487	45	0	0	0	185	726	0	1,933
2007 Model Existing Conditions	439	0	39	0	437	53	0	0	0	236	748	0	1,952
2015 Model Cumulative Conditions	547	0	54	0	650	61	0	0	0	298	893	0	2,503
Adjusted 2015 Cumulative No Project Conditions	553	0	54	0	699	53	0	0	0	243	843	0	2,445
Adjusted 2015 Cumulative Plus Project Conditions	559	0	54	0	700	53	0	0	0	247	871	0	2,484

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107

Intersection Name: US 101 NB Ramps & Tenant Avenue  
 Peak Hour: AM Date of Analysis: 7/3/12  
 Scenario: Count Date: 4/6/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	0	0	0	87	270	0	62	1	239	0	188	597	1,444
Adjusted Existing Conditions	0	0	0	87	270	0	62	1	239	597	188	0	1,444
Residential Project Trips	0	0	0	0	0	0	0	0	1	28	0	0	29
Retail Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	0	0	0	0	0	0	0	0	1	28	0	0	29
Existing Plus Project Conditions	0	0	0	87	270	0	62	1	240	625	188	0	1,473
2007 Model Existing Conditions	0	0	0	129	289	0	64	0	201	0	143	645	1,471
2015 Model Cumulative Conditions	0	0	0	135	326	0	69	0	385	0	200	0	1,115
Adjusted 2015 Cumulative No Project Conditions	0	0	0	93	307	0	67	1	423	597	245	0	1,733
Adjusted 2015 Cumulative Plus Project Conditions	0	0	0	93	307	0	67	1	424	625	245	0	1,762

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108

Intersection Name: Monterey Road & Project Driveway  
 Peak Hour: AM Date of Analysis: 7/3/12  
 Scenario: Count Date: 4/7/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	0	521	12	8	0	2	2	1,072	0	1	0	0	1,618
Adjusted Existing Conditions	0	521	12	8	0	2	2	1,072	0	0	0	0	1,617
Residential Project Trips	2	0	0	0	0	0	0	0	0	2	0	38	42
Retail Project Trips	6	0	0	0	0	0	0	0	3	3	0	6	18
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	8	0	0	0	0	0	0	0	3	5	0	44	60
Existing Plus Project Conditions	8	521	12	8	0	2	2	1,072	3	5	0	44	1,677
2007 Model Existing Conditions	20	586	0	27	0	0	48	1,494	0	11	0	0	2,186
2015 Model Cumulative Conditions	18	381	0	27	0	0	43	1,185	0	11	0	0	1,665
Adjusted 2015 Cumulative No Project Conditions	0	339	12	8	0	2	2	850	0	1	0	0	1,214
Adjusted 2015 Cumulative Plus Project Conditions	8	339	12	8	0	2	2	850	3	5	0	44	1,273

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101

Intersection Name: Monterey Road & Watsonville Road  
 Peak Hour: PM Date of Analysis: 5/5/11  
 Scenario: Count Date: 3/29/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	432	873	0	0	0	0	0	447	52	42	0	209	2,055
Adjusted Existing Conditions	432	873	0	0	0	0	0	447	52	42	0	209	2,055
Residential Project Trips	0	1	0	0	0	0	0	1	0	0	0	1	3
Retail Project Trips	9	2	0	0	0	0	0	2	0	0	0	9	22
Existing Site Trips	-4	-1	0	0	0	0	0	0	0	0	0	-2	-7
Net Project Trips	5	2	0	0	0	0	0	3	0	0	0	8	18
Existing Plus Project Conditions	437	875	0	0	0	0	0	450	52	42	0	217	2,073
2007 Model Existing Conditions	477	799	0	0	0	0	0	599	129	79	0	335	2,418
2015 Model Cumulative Conditions	170	956	13	29	440	294	190	672	105	70	339	122	3,400
Adjusted 2015 Cumulative No Project Conditions	154	1,030	13	29	440	294	190	520	52	42	339	76	3,179
Adjusted 2015 Cumulative Plus Project Conditions	159	1,032	13	29	440	294	190	523	52	42	339	84	3,197

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102

Intersection Name: Monterey Road & Vineyard Boulevard  
 Peak Hour: PM Date of Analysis: 5/5/11  
 Scenario: Count Date: 3/30/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	163	660	135	35	231	359	137	396	101	21	112	110	2,460
Adjusted Existing Conditions	163	660	135	35	231	359	137	396	101	21	112	110	2,460
Residential Project Trips	0	11	0	0	0	24	12	6	0	1	0	0	54
Retail Project Trips	0	18	0	0	0	4	4	18	4	4	0	0	52
Existing Site Trips	0	-3	0	0	0	-1	-2	-8	-2	-1	0	0	-17
Net Project Trips	0	26	0	0	0	27	14	16	2	4	0	0	89
Existing Plus Project Conditions	163	686	135	35	231	386	151	412	103	25	112	110	2,549
2007 Model Existing Conditions	199	818	6	0	141	453	266	600	112	32	64	104	2,795
2015 Model Cumulative Conditions	195	871	5	0	110	246	60	632	135	32	39	107	2,432
Adjusted 2015 Cumulative No Project Conditions	163	713	135	35	231	195	31	428	124	21	112	113	2,301
Adjusted 2015 Cumulative Plus Project Conditions	163	739	135	35	231	222	45	444	126	25	112	113	2,390

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103

Intersection Name: Monterey Road & Tenant Avenue  
 Peak Hour: PM Date of Analysis: 5/5/11  
 Scenario: Count Date: 3/31/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT		
Existing Conditions	76	612	178	113	203	369	81	510	84	25	126	181	2,558
Adjusted Existing Conditions	76	612	178	113	203	369	81	510	84	25	126	181	2,558
Residential Project Trips	0	3	0	0	0	8	4	1	0	1	0	0	17
Retail Project Trips	0	15	0	0	0	1	1	14	2	2	0	0	35
Existing Site Trips	0	-3	0	0	0	0	-1	-7	-1	0	0	0	-12
Net Project Trips	0	15	0	0	0	9	4	8	1	3	0	0	40
Existing Plus Project Conditions	76	627	178	113	203	378	85	518	85	28	126	181	2,598
2007 Model Existing Conditions	91	808	160	221	185	191	5	515	78	86	208	152	2,700
2015 Model Cumulative Conditions	94	954	162	234	157	92	6	551	83	94	187	155	2,769
Adjusted 2015 Cumulative No Project Conditions	79	758	180	126	203	178	82	546	89	33	126	184	2,584
Adjusted 2015 Cumulative Plus Project Conditions	79	773	180	126	203	187	86	554	90	36	126	184	2,624

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104

Intersection Name: Vineyard Boulevard & Tenant Avenue  
 Peak Hour: PM Date of Analysis: 5/5/11  
 Scenario: Count Date: 4/6/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	Int. Total
Existing Conditions	22	20	77	24	784	493	448	8	16	6	466	29	2,393
Adjusted Existing Conditions	22	20	77	24	784	493	448	8	16	6	466	29	2,393
Residential Project Trips	0	1	0	0	8	23	12	0	0	0	4	0	48
Retail Project Trips	0	0	0	0	1	4	4	0	0	0	1	0	10
Existing Site Trips	0	0	0	0	0	-1	-2	0	0	0	0	-1	-4
Net Project Trips	0	1	0	0	9	26	14	0	0	0	4	0	54
Existing Plus Project Conditions	22	21	77	24	793	519	462	8	16	6	470	29	2,447
2007 Model Existing Conditions	23	32	46	46	527	431	412	17	65	39	357	11	2,006
2015 Model Cumulative Conditions	15	37	44	40	421	206	181	16	66	43	334	9	1,412
Adjusted 2015 Cumulative No Project Conditions	22	25	77	24	626	236	197	8	17	10	436	29	1,707
Adjusted 2015 Cumulative Plus Project Conditions	22	26	77	24	635	262	211	8	17	10	440	29	1,761

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105

Intersection Name: Butterfield Boulevard & Tenant Avenue  
 Peak Hour: PM Date of Analysis: 5/5/11  
 Scenario: Count Date: 4/5/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	Int. Total
Existing Conditions	215	10	167	63	973	17	18	10	24	0	902	250	2,649
Adjusted Existing Conditions	215	10	167	63	973	17	18	10	24	0	902	250	2,649
Residential Project Trips	1	0	0	0	30	0	0	0	0	0	15	0	46
Retail Project Trips	2	0	0	0	4	0	0	0	0	0	4	2	12
Existing Site Trips	0	0	0	0	-1	0	0	0	0	0	-2	-1	-4
Net Project Trips	3	0	0	0	33	0	0	0	0	0	17	1	54
Existing Plus Project Conditions	218	10	167	63	1,006	17	18	10	24	0	919	251	2,703
2007 Model Existing Conditions	39	0	182	159	976	0	0	0	0	0	799	64	2,219
2015 Model Cumulative Conditions	51	301	465	331	649	442	338	198	8	25	522	78	3,408
Adjusted 2015 Cumulative No Project Conditions	227	311	450	235	647	459	356	208	32	25	589	264	3,803
Adjusted 2015 Cumulative Plus Project Conditions	230	311	450	235	680	459	356	208	32	25	606	265	3,857

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106

Intersection Name: US 101 SB Ramps & Tenant Avenue  
 Peak Hour: PM Date of Analysis: 5/5/11  
 Scenario: Count Date: 4/5/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	Int. Total
Existing Conditions	653	0	97	0	480	67	0	0	0	409	710	0	2,416
Adjusted Existing Conditions	653	0	97	0	480	67	0	0	0	409	710	0	2,416
Residential Project Trips	27	0	0	0	4	0	0	0	0	2	13	0	46
Retail Project Trips	2	0	0	0	2	0	0	0	0	2	2	0	8
Existing Site Trips	0	0	0	0	0	0	0	0	0	-1	-1	0	-2
Net Project Trips	29	0	0	0	6	0	0	0	0	3	14	0	52
Existing Plus Project Conditions	682	0	97	0	486	67	0	0	0	412	724	0	2,468
2007 Model Existing Conditions	671	0	87	0	495	74	0	0	0	341	660	0	2,328
2015 Model Cumulative Conditions	757	0	101	0	691	78	0	0	0	546	821	0	2,994
Adjusted 2015 Cumulative No Project Conditions	739	0	111	0	676	71	0	0	0	614	871	0	3,082
Adjusted 2015 Cumulative Plus Project Conditions	768	0	111	0	682	71	0	0	0	617	885	0	3,134

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107

Intersection Name: US 101 NB Ramps & Tenant Avenue  
 Peak Hour: PM Date of Analysis: 7/3/12  
 Scenario: Count Date: 4/6/11

Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	0	0	0	54	260	0	106	4	270	0	348	386	1,428
Adjusted Existing Conditions	0	0	0	54	260	0	106	4	270	386	348	0	1,428
Residential Project Trips	0	0	0	0	0	0	0	0	4	13	0	0	17
Retail Project Trips	0	0	0	0	0	0	0	0	2	2	0	0	4
Existing Site Trips	0	0	0	0	0	0	0	0	0	-1	0	0	-1
Net Project Trips	0	0	0	0	0	0	0	0	6	14	0	0	20
Existing Plus Project Conditions	0	0	0	54	260	0	106	4	276	400	348	0	1,448
2007 Model Existing Conditions	0	0	0	64	246	0	99	0	322	0	344	402	1,477
2015 Model Cumulative Conditions	0	0	0	73	286	0	109	0	482	0	395	0	1,345
Adjusted 2015 Cumulative No Project Conditions	0	0	0	63	300	0	116	4	430	386	399	0	1,698
Adjusted 2015 Cumulative Plus Project Conditions	0	0	0	63	300	0	116	4	436	400	399	0	1,718

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108

Intersection Name: Monterey Road & Project Driveway  
 Peak Hour: PM Date of Analysis: 7/3/12  
 Scenario: Count Date: 4/7/11

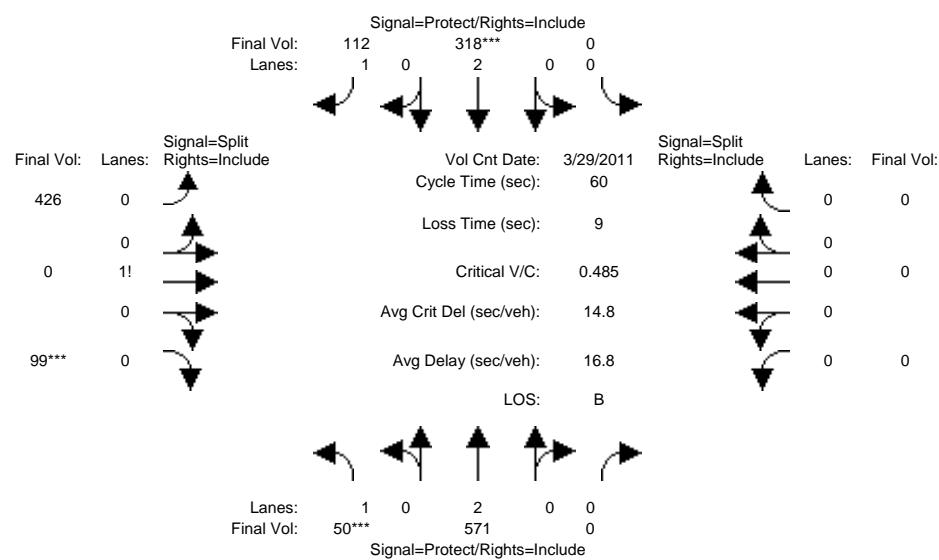
Scenario:	Movements												Int. Total
	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions	5	990	19	3	0	4	1	664	2	9	0	8	1,705
Adjusted Existing Conditions	0	990	19	3	0	4	1	664	0	0	0	0	1,681
Residential Project Trips	9	0	0	0	0	0	0	0	2	1	0	18	30
Retail Project Trips	32	0	0	0	0	0	0	0	14	14	0	32	92
Existing Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Project Trips	41	0	0	0	0	0	0	0	16	15	0	50	122
Existing Plus Project Conditions	41	990	19	3	0	4	1	664	16	15	0	50	1,803
2007 Model Existing Conditions	23	1,298	0	65	0	0	54	929	0	27	0	0	2,396
2015 Model Cumulative Conditions	22	1,141	0	60	0	0	53	781	0	25	0	0	2,082
Adjusted 2015 Cumulative No Project Conditions	5	870	19	3	0	4	1	558	2	9	0	8	1,479
Adjusted 2015 Cumulative Plus Project Conditions	41	870	19	3	0	4	1	558	16	15	0	50	1,577

## **Appendix C**

### **Level of Service Calculations**

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (AM)

Intersection #101: Monterey Road and Watsonville Road



Street Name: Monterey Road Watsonville Road																
Approach: North Bound				South Bound				East Bound				West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Min. Green:	7		10		10		7		10		10		10		10	
Y+R:	4.0		4.0		4.0		4.0		4.0		4.0		4.0		4.0	
Volume Module: >> Count Date: 29 Mar 2011 <<																
Base Vol:	50		571		0		0		318		112		426		0	
Growth Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	50		571		0		0		318		112		426		0	
Added Vol:	0		0		0		0		0		0		0		0	
PasserByVol:	0		0		0		0		0		0		0		0	
Initial Fut:	50		571		0		0		318		112		426		0	
User Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	50		571		0		0		318		112		426		0	
Reducet Vol:	0		0		0		0		0		0		0		0	
Reduced Vol:	50		571		0		0		318		112		426		0	
PCE Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
MLF Adj:	1.00		1.00		1.00		1.00		1.00		1.00		1.00		1.00	
FinalVolume:	50		571		0		0		318		112		426		0	

Saturation Flow Module:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.81	0.00	0.19	0.00	0.00
Final Sat.:	1750	3800	0	0	3800	1750	1420	0	330	0	0

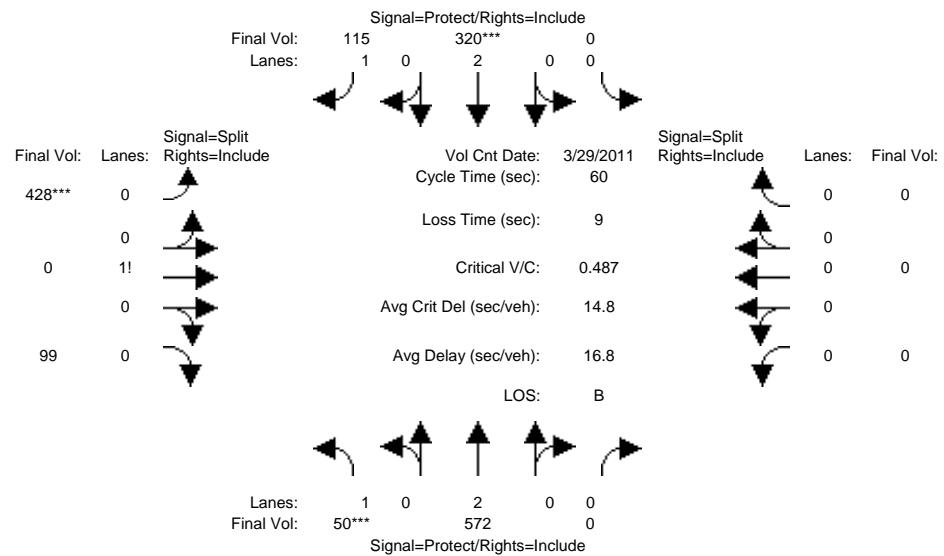
Capacity Analysis Module:											
Vol/Sat:	0.03	0.15	0.00	0.00	0.08	0.06	0.30	0.00	0.30	0.00	0.00
Crit Moves:	****				****				****		
Green Time:	7.0	17.0	0.0	0.0	10.0	10.0	34.0	0.0	34.0	0.0	0.0
Volume/Cap:	0.24	0.53	0.00	0.00	0.50	0.38	0.53	0.00	0.53	0.00	0.00
Delay/Veh:	24.7	18.6	0.0	0.0	23.4	23.1	8.6	0.0	8.6	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	18.6	0.0	0.0	23.4	23.1	8.6	0.0	8.6	0.0	0.0
LOS by Move:	C	B	A	A	C	C	A	A	A	A	A
HCM2kAvgQ:	1	4	0	0	3	2	7	0	7	0	0

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (AM)

## Intersection #101: Monterey Road and Watsonville Road



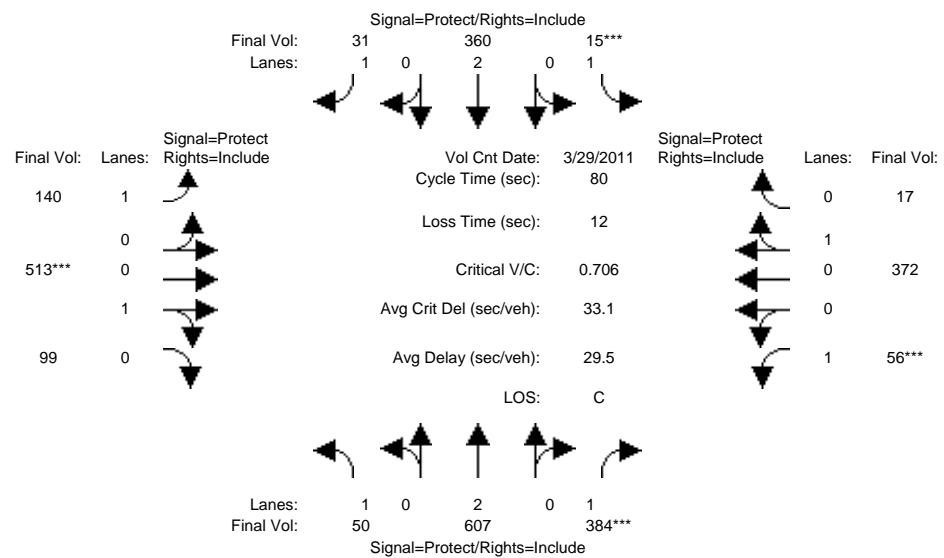
Street Name:		Monterey Road				Watsonville Road			
Approach:	North Bound	South Bound		East Bound		West Bound			
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R		
Min. Green:	7	10	10	7	10	10	10	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module: >> Count Date: 29 Mar 2011 <<									
Base Vol:	50	571	0	0	318	112	426	0	99
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	571	0	0	318	112	426	0	99
Added Vol:	0	1	0	0	2	3	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0
Initial Fut:	50	572	0	0	320	115	428	0	99
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	50	572	0	0	320	115	428	0	99
Reduc Vol:	0	0	0	0	0	0	0	0	0
Reduced Vol:	50	572	0	0	320	115	428	0	99
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	50	572	0	0	320	115	428	0	99
Saturation Flow Module:									
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.81	0.00	0.19
Final Sat.:	1750	3800	0	0	3800	1750	1421	0	329
Capacity Analysis Module:									
Vol/Sat:	0.03	0.15	0.00	0.00	0.08	0.07	0.30	0.00	0.30
Crit Moves:	****		****		****		****		****
Green Time:	7.0	17.0	0.0	0.0	10.0	10.0	34.0	0.0	0.0
Volume/Cap:	0.24	0.53	0.00	0.00	0.51	0.39	0.53	0.00	0.53
Delay/Veh:	24.7	18.6	0.0	0.0	23.4	23.2	8.6	0.0	8.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	18.6	0.0	0.0	23.4	23.2	8.6	0.0	8.6
LOS by Move:	C	B	A	A	C	C	A	A	A
HCM2kAvgQ:	1	4	0	0	3	2	7	0	7

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (AM)

## Intersection #101: Monterey Road and Watsonville Road



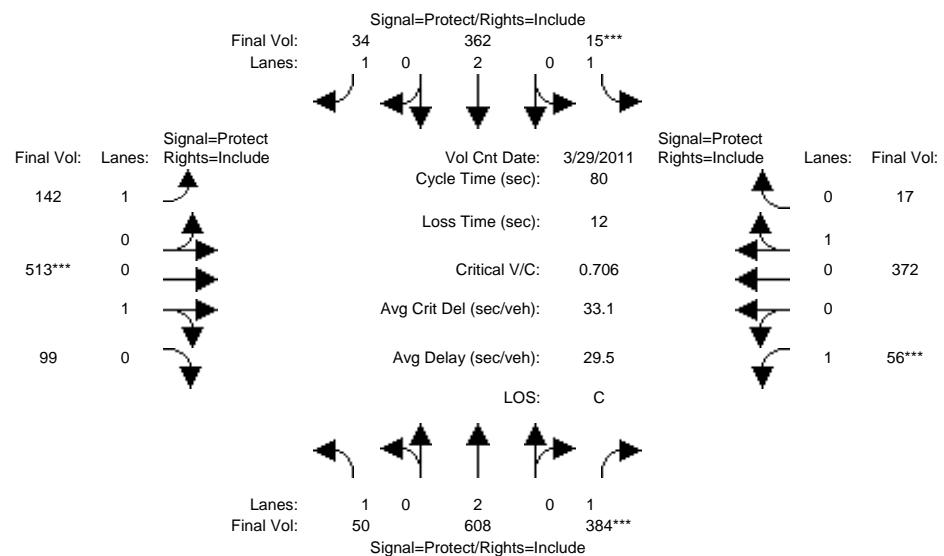
Street Name: Monterey Road Watsonville Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 29 Mar 2011 <<															
Base Vol:	50	607	384	15	360	31	140	513	99	56	372	17			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	50	607	384	15	360	31	140	513	99	56	372	17			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	50	607	384	15	360	31	140	513	99	56	372	17			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	50	607	384	15	360	31	140	513	99	56	372	17			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	50	607	384	15	360	31	140	513	99	56	372	17			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	50	607	384	15	360	31	140	513	99	56	372	17			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.84	0.16	1.00	0.96	0.04			
Final Sat.:	1750	3800	1750	3800	1750	1750	1509	291	1750	1721	79				
Capacity Analysis Module:															
Vol/Sat:	0.03	0.16	0.22	0.01	0.09	0.02	0.08	0.34	0.34	0.03	0.22	0.22			
Crit Moves:	****			****			****			****					
Green Time:	11.6	21.2	21.2	7.0	16.6	16.6	11.5	32.8	32.8	7.0	28.3	28.3			
Volume/Cap:	0.20	0.60	0.83	0.10	0.46	0.09	0.56	0.83	0.83	0.37	0.61	0.61			
Delay/Veh:	30.5	26.8	39.5	33.9	28.2	25.7	34.7	28.9	28.9	35.9	23.0	23.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	30.5	26.8	39.5	33.9	28.2	25.7	34.7	28.9	28.9	35.9	23.0	23.0			
LOS by Move:	C	C	D	C	C	C	C	C	C	D	C	C			
HCM2kAvgQ:	1	7	10	0	4	1	4	15	15	2	9	9			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (AM)

## Intersection #101: Monterey Road and Watsonville Road



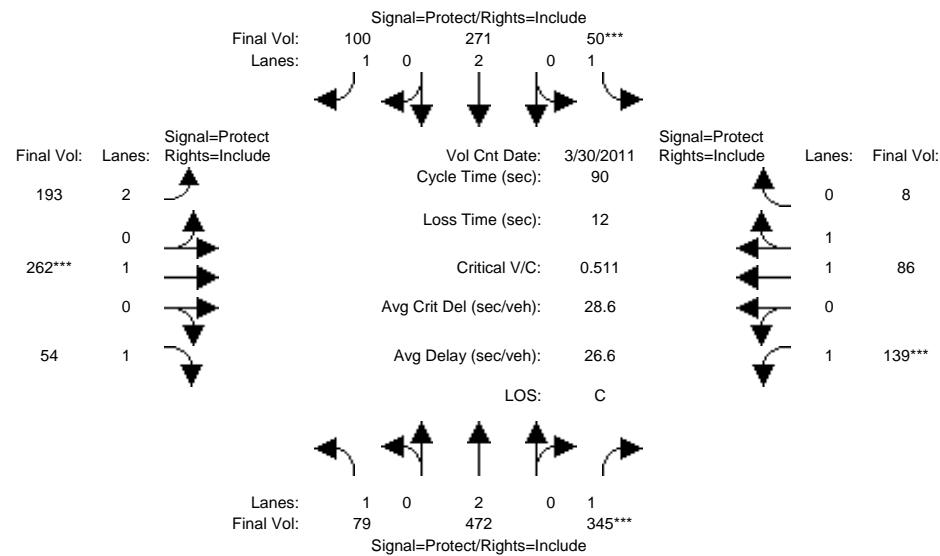
Street Name: Monterey Road Watsonville Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 29 Mar 2011 <<															
Base Vol:	50	607	384	15	360	31	140	513	99	56	372	17			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	50	607	384	15	360	31	140	513	99	56	372	17			
Added Vol:	0	1	0	0	2	3	2	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	50	608	384	15	362	34	142	513	99	56	372	17			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	50	608	384	15	362	34	142	513	99	56	372	17			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	50	608	384	15	362	34	142	513	99	56	372	17			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	50	608	384	15	362	34	142	513	99	56	372	17			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.84	0.16	1.00	0.96	0.04			
Final Sat.:	1750	3800	1750	3800	1750	1750	1509	291	1750	1721	79				
Capacity Analysis Module:															
Vol/Sat:	0.03	0.16	0.22	0.01	0.10	0.02	0.08	0.34	0.34	0.03	0.22	0.22			
Crit Moves:	****			****			****			****					
Green Time:	11.6	21.2	21.2	7.0	16.6	16.6	11.5	32.8	32.8	7.0	28.3	28.3			
Volume/Cap:	0.20	0.60	0.83	0.10	0.46	0.09	0.57	0.83	0.83	0.37	0.61	0.61			
Delay/Veh:	30.5	26.8	39.5	33.9	28.2	25.8	34.9	28.9	28.9	35.9	23.0	23.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	30.5	26.8	39.5	33.9	28.2	25.8	34.9	28.9	28.9	35.9	23.0	23.0			
LOS by Move:	C	C	D	C	C	C	C	C	C	D	C	C			
HCM2kAvgQ:	1	7	10	0	4	1	4	15	15	2	9	9			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (AM)

## Intersection #102: Monterey Road and Vineyard Boulevard



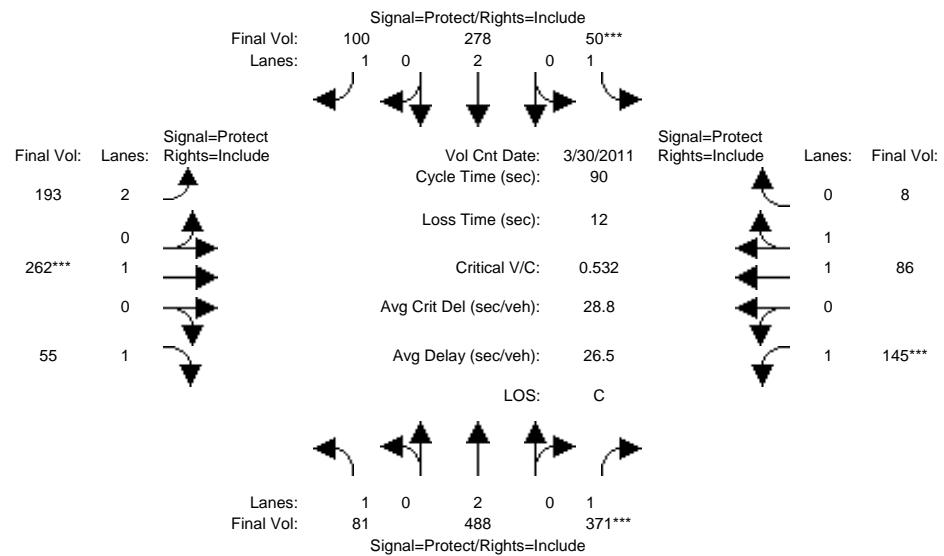
Street Name: Monterey Road Vineyard Boulevard															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 30 Mar 2011 <<															
Base Vol:	79	472	345	50	271	100	193	262	54	139	86	8			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	79	472	345	50	271	100	193	262	54	139	86	8			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	79	472	345	50	271	100	193	262	54	139	86	8			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	79	472	345	50	271	100	193	262	54	139	86	8			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	79	472	345	50	271	100	193	262	54	139	86	8			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	79	472	345	50	271	100	193	262	54	139	86	8			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.83	0.17			
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	1900	1750	1750	3385	315			
Capacity Analysis Module:															
Vol/Sat:	0.05	0.12	0.20	0.03	0.07	0.06	0.06	0.14	0.03	0.08	0.03	0.03			
Crit Moves:	****			****			****			****					
Green Time:	16.8	33.8	33.8	7.0	24.0	24.0	15.3	23.6	23.6	13.6	21.9	21.9			
Volume/Cap:	0.24	0.33	0.53	0.37	0.27	0.21	0.36	0.53	0.12	0.53	0.10	0.10			
Delay/Veh:	31.6	20.2	22.7	41.1	26.2	25.9	33.4	29.4	25.4	37.2	26.5	26.5			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	31.6	20.2	22.7	41.1	26.2	25.9	33.4	29.4	25.4	37.2	26.5	26.5			
LOS by Move:	C	C	C	D	C	C	C	C	C	D	C	C			
HCM2kAvgQ:	2	4	8	1	3	2	3	6	1	5	1	1			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (AM)

## Intersection #102: Monterey Road and Vineyard Boulevard



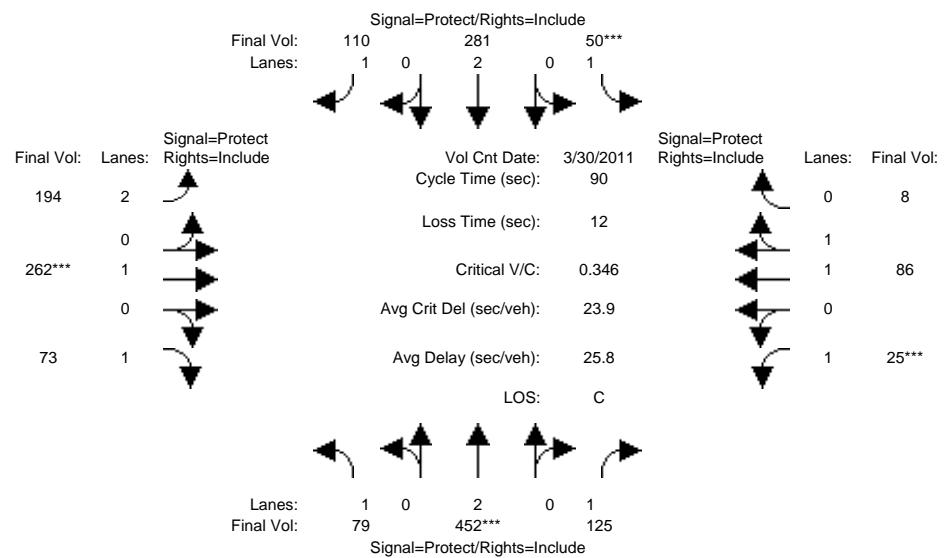
Street Name: Monterey Road Vineyard Boulevard															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	7	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 30 Mar 2011 <<															
Base Vol:	79	472	345	50	271	100	193	262	54	139	86	8			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	79	472	345	50	271	100	193	262	54	139	86	8			
Added Vol:	2	16	26	0	7	0	0	0	1	6	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	81	488	371	50	278	100	193	262	55	145	86	8			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	81	488	371	50	278	100	193	262	55	145	86	8			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	81	488	371	50	278	100	193	262	55	145	86	8			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	81	488	371	50	278	100	193	262	55	145	86	8			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.83	0.17			
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	1900	1750	1750	3385	315			
Capacity Analysis Module:															
Vol/Sat:	0.05	0.13	0.21	0.03	0.07	0.06	0.06	0.14	0.03	0.08	0.03	0.03			
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****			
Green Time:	17.2	34.8	34.8	7.0	24.6	24.6	14.9	22.6	22.6	13.6	21.3	21.3			
Volume/Cap:	0.24	0.33	0.55	0.37	0.27	0.21	0.37	0.55	0.13	0.55	0.11	0.11			
Delay/Veh:	31.2	19.6	22.5	41.1	25.8	25.4	33.8	30.6	26.2	37.8	27.0	27.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	31.2	19.6	22.5	41.1	25.8	25.4	33.8	30.6	26.2	37.8	27.0	27.0			
LOS by Move:	C	B	C	D	C	C	C	C	C	D	C	C			
HCM2kAvgQ:	2	5	8	1	3	2	3	6	1	5	1	1			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (AM)

## Intersection #102: Monterey Road and Vineyard Boulevard



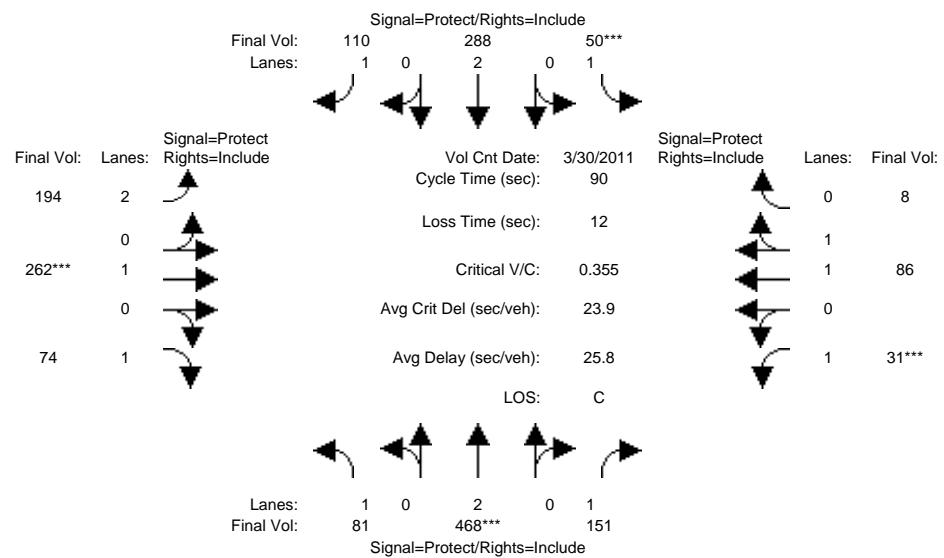
Street Name: Monterey Road Vineyard Boulevard															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	7	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 30 Mar 2011 <<															
Base Vol:	79	452	125	50	281	110	194	262	73	25	86	8			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	79	452	125	50	281	110	194	262	73	25	86	8			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	79	452	125	50	281	110	194	262	73	25	86	8			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	79	452	125	50	281	110	194	262	73	25	86	8			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	79	452	125	50	281	110	194	262	73	25	86	8			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	79	452	125	50	281	110	194	262	73	25	86	8			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.83	0.17			
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	1900	1750	1750	3385	315			
Capacity Analysis Module:															
Vol/Sat:	0.05	0.12	0.07	0.03	0.07	0.06	0.06	0.14	0.04	0.01	0.03	0.03			
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****			
Green Time:	15.1	29.6	29.6	7.1	21.6	21.6	17.0	34.3	34.3	7.0	24.3	24.3			
Volume/Cap:	0.27	0.36	0.22	0.36	0.31	0.26	0.33	0.36	0.11	0.18	0.09	0.09			
Delay/Veh:	33.1	23.2	22.0	40.9	28.3	28.1	31.9	20.3	18.1	39.5	24.6	24.6			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	33.1	23.2	22.0	40.9	28.3	28.1	31.9	20.3	18.1	39.5	24.6	24.6			
LOS by Move:	C	C	C	D	C	C	C	C	B	D	C	C			
HCM2kAvgQ:	2	5	3	1	3	3	3	5	1	1	1	1			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (AM)

## Intersection #102: Monterey Road and Vineyard Boulevard



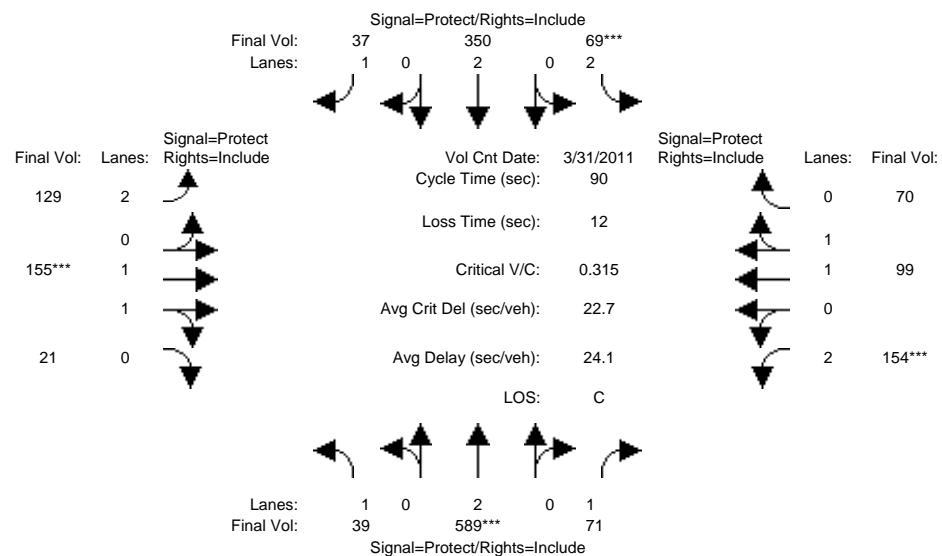
Street Name: Monterey Road Vineyard Boulevard															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 30 Mar 2011 <<															
Base Vol:	79	452	125	50	281	110	194	262	73	25	86	8			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	79	452	125	50	281	110	194	262	73	25	86	8			
Added Vol:	2	16	26	0	7	0	0	0	1	6	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	81	468	151	50	288	110	194	262	74	31	86	8			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	81	468	151	50	288	110	194	262	74	31	86	8			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	81	468	151	50	288	110	194	262	74	31	86	8			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	81	468	151	50	288	110	194	262	74	31	86	8			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.83	0.17			
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	1900	1750	1750	3385	315			
Capacity Analysis Module:															
Vol/Sat:	0.05	0.12	0.09	0.03	0.08	0.06	0.06	0.14	0.04	0.02	0.03	0.03			
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****			
Green Time:	15.3	30.2	30.2	7.0	21.9	21.9	16.8	33.8	33.8	7.0	24.0	24.0			
Volume/Cap:	0.27	0.37	0.26	0.37	0.31	0.26	0.33	0.37	0.11	0.23	0.10	0.10			
Delay/Veh:	33.0	22.8	22.0	41.1	28.1	27.8	32.1	20.7	18.4	39.8	24.9	24.9			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	33.0	22.8	22.0	41.1	28.1	27.8	32.1	20.7	18.4	39.8	24.9	24.9			
LOS by Move:	C	C	C	D	C	C	C	C	B	D	C	C			
HCM2kAvgQ:	2	5	3	1	3	3	3	5	1	1	1	1			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (AM)

## Intersection #103: Monterey Road and Tennant Avenue



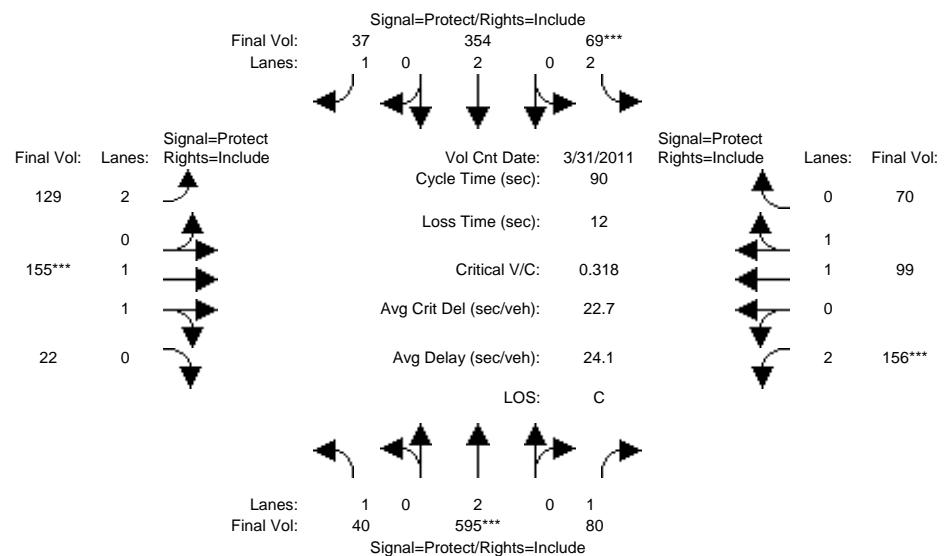
Street Name: Monterey Road Tenant Avenue														
Approach:	North Bound			South Bound			East Bound			West Bound				
	L	-	T	-	R	L	-	T	-	R	L	-	T	-
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Min. Green:	7 10		10 7		10 37		129 155		21 154		99 70			
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Volume Module: >> Count Date: 31 Mar 2011 <<														
Base Vol:	39	589	71	69	350	37	129	155	21	154	99	70		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	39	589	71	69	350	37	129	155	21	154	99	70		
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	39	589	71	69	350	37	129	155	21	154	99	70		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	39	589	71	69	350	37	129	155	21	154	99	70		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	39	589	71	69	350	37	129	155	21	154	99	70		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	39	589	71	69	350	37	129	155	21	154	99	70		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95		
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	1.75	0.25	2.00	1.15	0.85		
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	3258	441	3150	2166	1532		
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----														
Capacity Analysis Module:														
Vol/Sat:	0.02	0.16	0.04	0.02	0.09	0.02	0.04	0.05	0.05	0.05	0.05	0.05		
Crit Moves:	****		****	****		****	****		****	****		****		
Green Time:	20.9	43.8	43.8	7.0	29.9	29.9	11.2	13.4	13.4	13.8	16.0	16.0		
Volume/Cap:	0.10	0.32	0.08	0.28	0.28	0.06	0.33	0.32	0.32	0.32	0.26	0.26		
Delay/Veh:	27.2	14.2	12.4	39.8	22.3	20.6	36.4	34.5	34.5	34.3	32.1	32.1		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	27.2	14.2	12.4	39.8	22.3	20.6	36.4	34.5	34.5	34.3	32.1	32.1		
LOS by Move:	C	B	B	D	C	C	D	C	C	C	C	C		
HCM2kAvgQ:	1	5	1	1	3	1	2	2	2	2	2	2		

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (AM)

## Intersection #103: Monterey Road and Tennant Avenue



Street Name: Monterey Road Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 31 Mar 2011 <<															
Base Vol:	39	589	71	69	350	37	129	155	21	154	99	70			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	39	589	71	69	350	37	129	155	21	154	99	70			
Added Vol:	1	6	9	0	4	0	0	0	1	2	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	40	595	80	69	354	37	129	155	22	156	99	70			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	40	595	80	69	354	37	129	155	22	156	99	70			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	40	595	80	69	354	37	129	155	22	156	99	70			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	40	595	80	69	354	37	129	155	22	156	99	70			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95			
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	1.74	0.26	2.00	1.15	0.85			
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	3240	460	3150	2166	1532			
Capacity Analysis Module:															
Vol/Sat:	0.02	0.16	0.05	0.02	0.09	0.02	0.04	0.05	0.05	0.05	0.05				
Crit Moves:	****		****	****		****	****		****		****				
Green Time:	20.9	43.8	43.8	7.0	29.9	29.9	11.2	13.4	13.4	13.8	16.0	16.0			
Volume/Cap:	0.10	0.32	0.09	0.28	0.28	0.06	0.33	0.32	0.32	0.32	0.26	0.26			
Delay/Veh:	27.2	14.2	12.5	39.8	22.3	20.6	36.5	34.6	34.6	34.3	32.1	32.1			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	27.2	14.2	12.5	39.8	22.3	20.6	36.5	34.6	34.6	34.3	32.1	32.1			
LOS by Move:	C	B	B	D	C	C	D	C	C	C	C				
HCM2kAvgQ:	1	5	1	1	3	1	2	2	2	2	2				

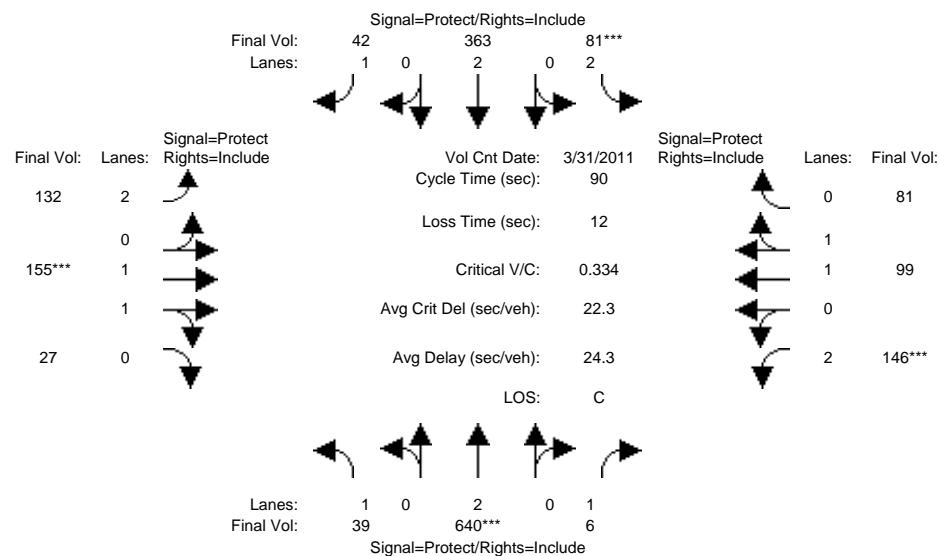
Note: Queue reported is the number of cars per lane.

Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (AM)

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## Intersection #103: Monterey Road and Tennant Avenue

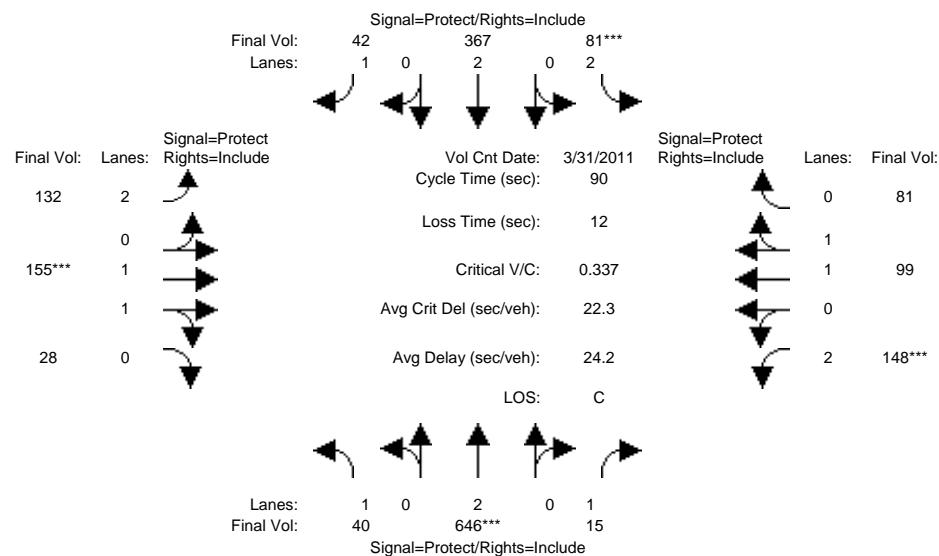


Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (AM)

## Intersection #103: Monterey Road and Tennant Avenue



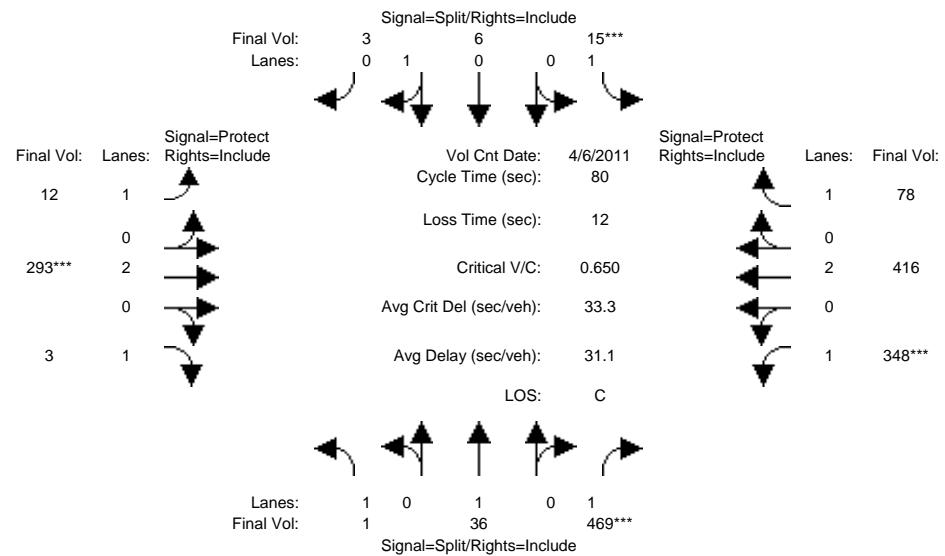
Street Name: Monterey Road Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10	10		7	10		10	7		10	10		
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Volume Module: >> Count Date: 31 Mar 2011 <<															
Base Vol:	39	640	6	81	363	42	132	155	27	146	99	81			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	39	640	6	81	363	42	132	155	27	146	99	81			
Added Vol:	1	6	9	0	4	0	0	0	1	2	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	40	646	15	81	367	42	132	155	28	148	99	81			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	40	646	15	81	367	42	132	155	28	148	99	81			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	40	646	15	81	367	42	132	155	28	148	99	81			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	40	646	15	81	367	42	132	155	28	148	99	81			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	1.00	0.95			
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	1.69	0.31	2.00	1.08	0.92			
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	3133	566	3150	2034	1664			
Capacity Analysis Module:															
Vol/Sat:	0.02	0.17	0.01	0.03	0.10	0.02	0.04	0.05	0.05	0.05	0.05	0.05			
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****			
Green Time:	21.5	45.3	45.3	7.0	30.8	30.8	10.6	13.2	13.2	12.5	15.1	15.1			
Volume/Cap:	0.10	0.34	0.02	0.33	0.28	0.07	0.36	0.34	0.34	0.34	0.29	0.29			
Delay/Veh:	26.8	13.5	11.2	40.1	21.7	20.0	37.2	34.9	34.9	35.5	33.0	33.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	26.8	13.5	11.2	40.1	21.7	20.0	37.2	34.9	34.9	35.5	33.0	33.0			
LOS by Move:	C	B	B	D	C	C	D	C	C	D	C	C			
HCM2kAvgQ:	1	5	0	1	4	1	2	2	2	2	2	2			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (AM)

## Intersection #104: Vineyard Boulevard and Tenant Avenue



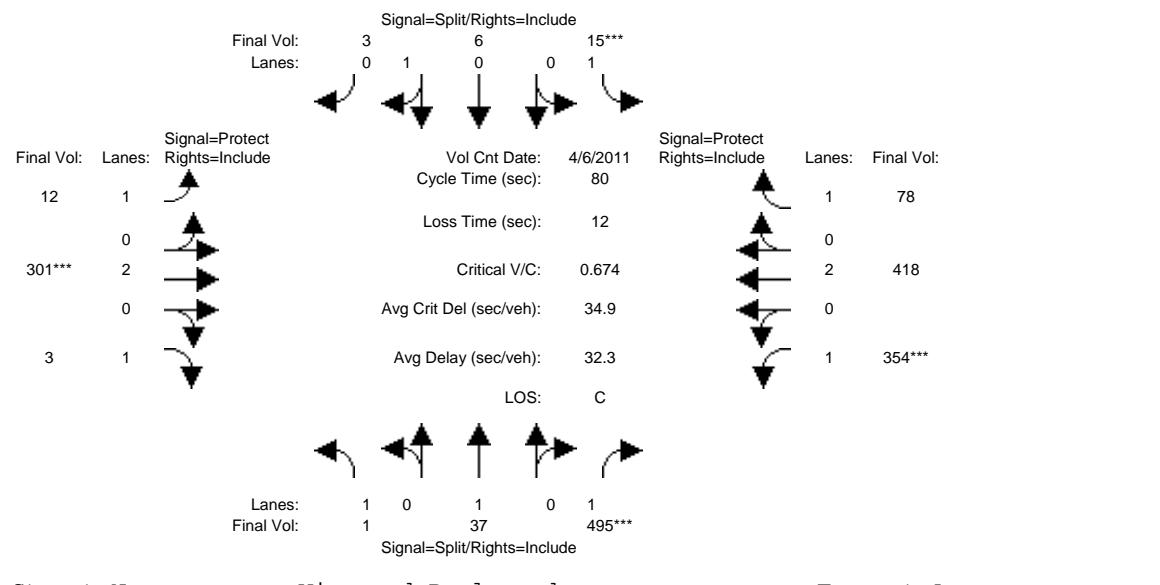
Street Name: Vineyard Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10 10		10 10		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 6 Apr 2011 <<															
Base Vol:	1	36	469	15	6	3	12	293	3	348	416	78			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	1	36	469	15	6	3	12	293	3	348	416	78			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	1	36	469	15	6	3	12	293	3	348	416	78			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	1	36	469	15	6	3	12	293	3	348	416	78			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	1	36	469	15	6	3	12	293	3	348	416	78			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	1	36	469	15	6	3	12	293	3	348	416	78			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00				
Lanes:	1.00	1.00	1.00	0.67	0.33	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1750	1900	1750	1750	1200	600	1750	3800	1750	1750	3800				
Capacity Analysis Module:															
Vol/Sat:	0.00	0.02	0.27	0.01	0.01	0.01	0.01	0.08	0.00	0.20	0.11	0.04			
Crit Moves:	****			****			****			****					
Green Time:	27.6	27.6	27.6	10.0	10.0	10.0	12.5	10.0	10.0	20.4	17.9	17.9			
Volume/Cap:	0.00	0.06	0.78	0.07	0.04	0.04	0.04	0.62	0.01	0.78	0.49	0.20			
Delay/Veh:	17.2	17.6	29.9	31.0	30.9	30.9	28.7	35.6	30.7	36.1	27.5	25.5			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	17.2	17.6	29.9	31.0	30.9	30.9	28.7	35.6	30.7	36.1	27.5	25.5			
LOS by Move:	B	B	C	C	C	C	C	D	C	D	C	C			
HCM2kAvgQ:	0	1	13	0	0	0	0	3	0	9	4	2			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (AM)

## Intersection #104: Vineyard Boulevard and Tenant Avenue



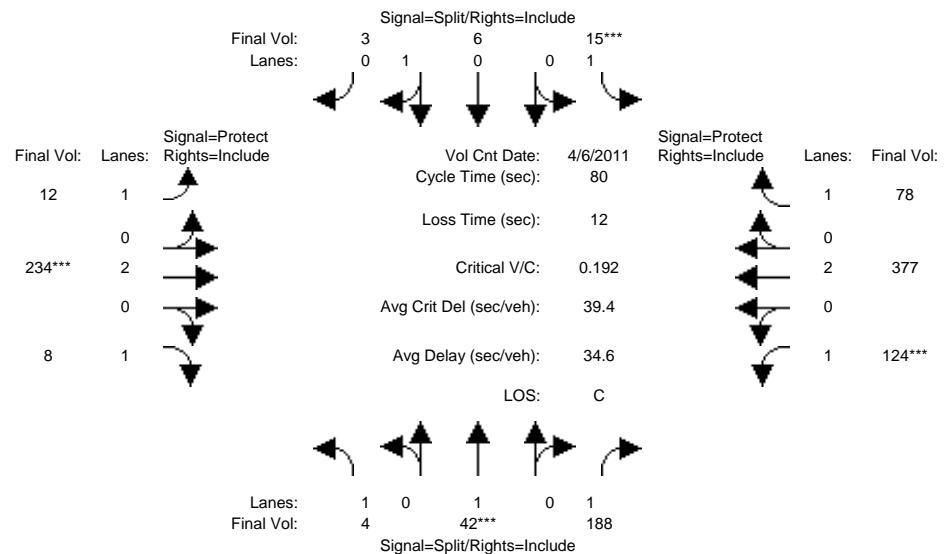
Street Name: Vineyard Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10 10		10 10		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 6 Apr 2011 <<															
Base Vol:	1	36	469	15	6	3	12	293	3	348	416	78			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	1	36	469	15	6	3	12	293	3	348	416	78			
Added Vol:	0	1	26	0	0	0	0	8	0	6	2	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	1	37	495	15	6	3	12	301	3	354	418	78			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	1	37	495	15	6	3	12	301	3	354	418	78			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	1	37	495	15	6	3	12	301	3	354	418	78			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	1	37	495	15	6	3	12	301	3	354	418	78			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92			
Lanes:	1.00	1.00	1.00	0.67	0.33	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1750	1900	1750	1750	1200	600	1750	3800	1750	1750	3800	1750			
Capacity Analysis Module:															
Vol/Sat:	0.00	0.02	0.28	0.01	0.01	0.01	0.01	0.08	0.00	0.20	0.11	0.04			
Crit Moves:	****			****			****			****					
Green Time:	28.0	28.0	28.0	10.0	10.0	10.0	12.4	10.0	10.0	20.0	17.7	17.7			
Volume/Cap:	0.00	0.06	0.81	0.07	0.04	0.04	0.04	0.63	0.01	0.81	0.50	0.20			
Delay/Veh:	16.9	17.3	31.5	31.0	30.9	30.9	28.9	36.1	30.7	38.9	27.8	25.7			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	16.9	17.3	31.5	31.0	30.9	30.9	28.9	36.1	30.7	38.9	27.8	25.7			
LOS by Move:	B	B	C	C	C	C	C	D	C	D	C	C			
HCM2kAvgQ:	0	1	14	0	0	0	0	4	0	9	4	2			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (AM)

## Intersection #104: Vineyard Boulevard and Tennant Avenue



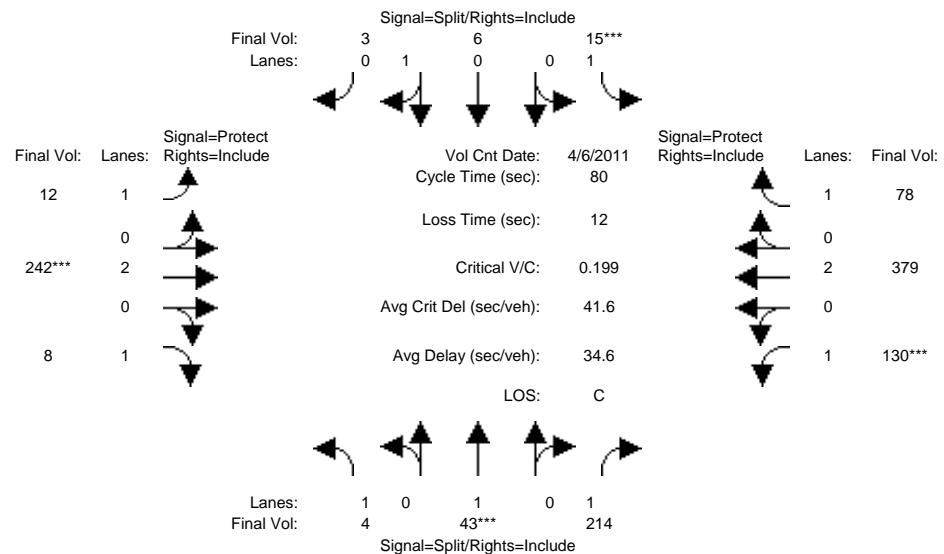
Street Name: Vineyard Boulevard												Tennant Avenue												
Approach:	North Bound				South Bound				East Bound				West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Min. Green:	10	10	10	10	10	10	7	10	10	10	7	10	10	10	10	124	377	78						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	1.00	1.00	1.00	1.00	1.00	1.00			
Volume Module: >> Count Date: 6 Apr 2011 <<																								
Base Vol:	4	42	188	15	6	3	12	234	8	124	377	78												
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
Initial Bse:	4	42	188	15	6	3	12	234	8	124	377	78												
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	4	42	188	15	6	3	12	234	8	124	377	78												
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
PHF Volume:	4	42	188	15	6	3	12	234	8	124	377	78												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	4	42	188	15	6	3	12	234	8	124	377	78												
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
FinalVolume:	4	42	188	15	6	3	12	234	8	124	377	78												
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92												
Lanes:	1.00	1.00	1.00	1.00	0.67	0.33	1.00	2.00	1.00	1.00	2.00	1.00												
Final Sat.:	1750	1900	1750	1750	1200	600	1750	3800	1750	1750	3800	1750												
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.02	0.11	0.01	0.01	0.01	0.01	0.06	0.00	0.07	0.10	0.04												
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****												
Green Time:	44.8	44.8	44.8	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0												
Volume/Cap:	0.00	0.04	0.19	0.07	0.04	0.04	0.08	0.49	0.04	0.81	0.79	0.36												
Delay/Veh:	7.8	7.9	8.8	31.0	30.9	30.9	33.8	33.4	30.8	62.4	42.9	33.1												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
AdjDel/Veh:	7.8	7.9	8.8	31.0	30.9	30.9	33.8	33.4	30.8	62.4	42.9	33.1												
LOS by Move:	A	A	A	C	C	C	C	C	C	E	D	C												
HCM2kAvgQ:	0	0	2	0	0	0	0	3	0	4	5	2												

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (AM)

## Intersection #104: Vineyard Boulevard and Tennant Avenue



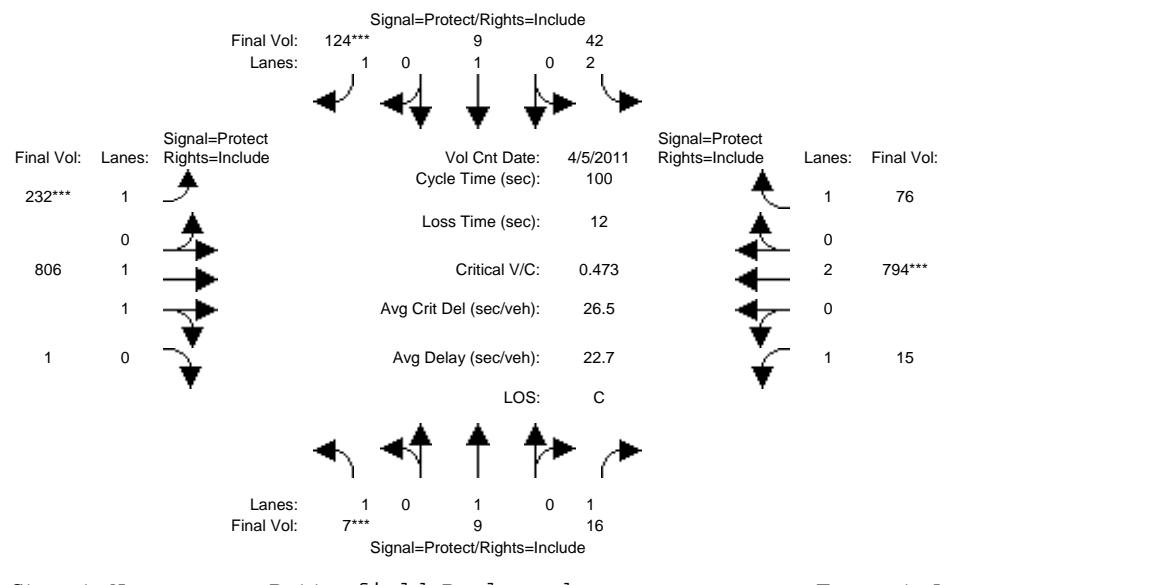
Street Name: Vineyard Boulevard												Tennant Avenue				
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Volume Module: >> Count Date: 6 Apr 2011 <<																
Base Vol:	4	42	188	15	6	3	12	234	8	124	377	78				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	4	42	188	15	6	3	12	234	8	124	377	78				
Added Vol:	0	1	26	0	0	0	0	8	0	6	2	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	4	43	214	15	6	3	12	242	8	130	379	78				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	4	43	214	15	6	3	12	242	8	130	379	78				
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	4	43	214	15	6	3	12	242	8	130	379	78				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	4	43	214	15	6	3	12	242	8	130	379	78				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92				
Lanes:	1.00	1.00	1.00	0.67	0.33	1.00	2.00	1.00	1.00	2.00	1.00	1.00				
Final Sat.:	1750	1900	1750	1750	1200	600	1750	3800	1750	1750	3800	1750				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.02	0.12	0.01	0.01	0.01	0.01	0.06	0.00	0.07	0.10	0.04				
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****				
Green Time:	49.2	49.2	49.2	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0				
Volume/Cap:	0.00	0.04	0.20	0.07	0.04	0.04	0.08	0.51	0.04	0.85	0.80	0.36				
Delay/Veh:	6.0	6.1	6.9	31.0	30.9	30.9	33.8	33.6	30.8	69.5	43.2	33.1				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	6.0	6.1	6.9	31.0	30.9	30.9	33.8	33.6	30.8	69.5	43.2	33.1				
LOS by Move:	A	A	A	C	C	C	C	C	C	E	D	C				
HCM2kAvgQ:	0	0	3	0	0	0	0	3	0	4	5	2				

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (AM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



Street Name:	Butterfield Boulevard						Tennant Avenue								
	Approach: North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10	7	10	10	7	10	10	10	7	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 5 Apr 2011 <<															
Base Vol:	7	9	16	42	9	124	232	806	1	15	794	76			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	7	9	16	42	9	124	232	806	1	15	794	76			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	7	9	16	42	9	124	232	806	1	15	794	76			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	7	9	16	42	9	124	232	806	1	15	794	76			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	7	9	16	42	9	124	232	806	1	15	794	76			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	7	9	16	42	9	124	232	806	1	15	794	76			

Saturation Flow Module:													
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.95	0.92	1.00	0.92	1.00
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.99	0.01	1.00	2.00	1.00	1.00
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3695	5	1750	3800	1750	

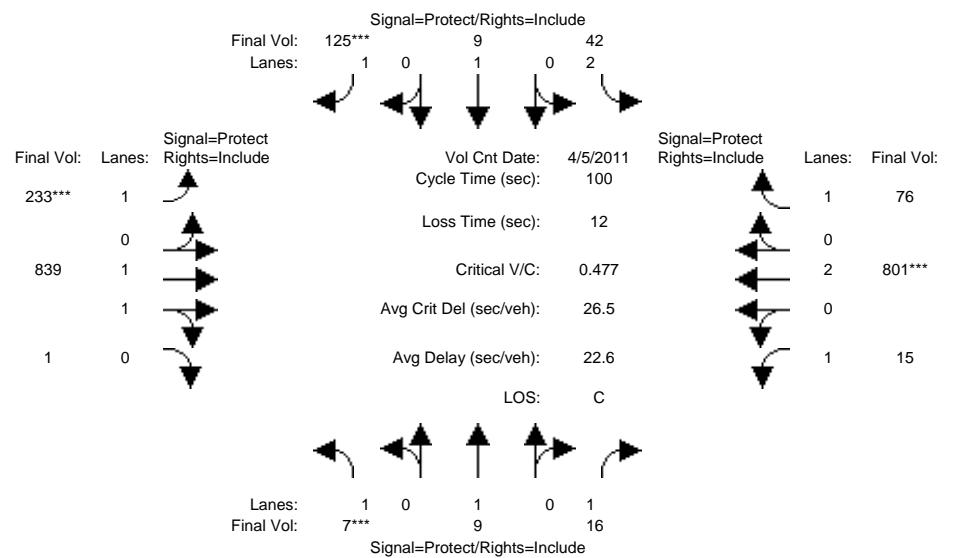
Capacity Analysis Module:													
Vol/Sat:	0.00	0.00	0.01	0.01	0.00	0.07	0.13	0.22	0.22	0.01	0.21	0.04	
Crit Moves:	****					****	****			****			
Green Time:	7.0	12.3	12.3	8.6	13.9	13.9	26.0	50.8	50.8	16.3	41.0	41.0	
Volume/Cap:	0.06	0.04	0.07	0.15	0.03	0.51	0.51	0.43	0.43	0.05	0.51	0.11	
Delay/Veh:	43.6	38.7	39.0	42.6	37.3	41.7	32.5	15.6	15.6	35.4	22.3	18.2	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	43.6	38.7	39.0	42.6	37.3	41.7	32.5	15.6	15.6	35.4	22.3	18.2	
LOS by Move:	D	D	D	D	D	D	C	B	B	D	C	B	
HCM2kAvgQ:	0	0	1	1	0	4	6	8	8	0	9	1	

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (AM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



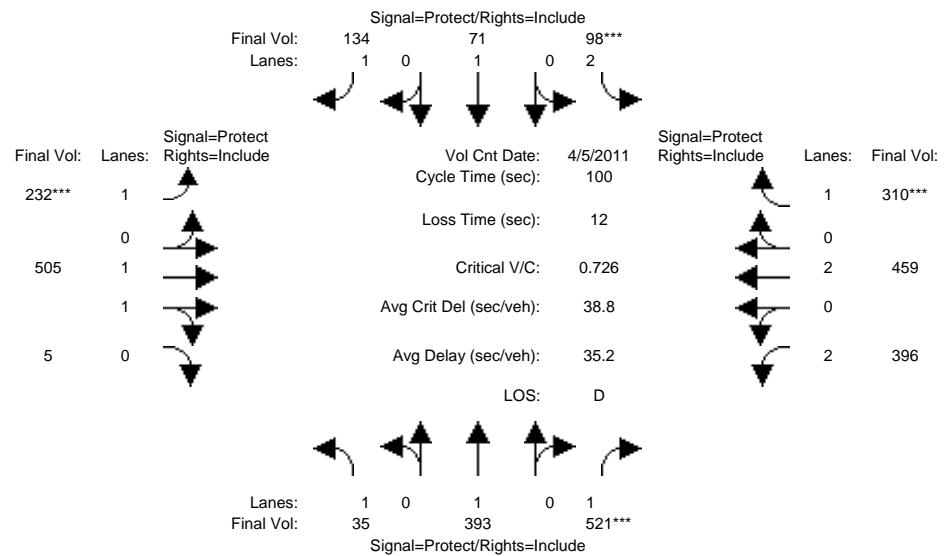
Street Name: Butterfield Boulevard Tenant Avenue														
Approach:	North Bound			South Bound			East Bound			West Bound				
	L	-	T	-	R	L	-	T	-	R	L	-	T	-
Min. Green:	7 10		10 7		10 7		10 7		10 7		10 7		10 7	
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0	
Volume Module: >> Count Date: 5 Apr 2011 <<														
Base Vol:	7	9	16	42	9	124	232	806	1	15	794	76		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	7	9	16	42	9	124	232	806	1	15	794	76		
Added Vol:	0	0	0	0	0	1	1	33	0	0	7	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	7	9	16	42	9	125	233	839	1	15	801	76		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	7	9	16	42	9	125	233	839	1	15	801	76		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	7	9	16	42	9	125	233	839	1	15	801	76		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	7	9	16	42	9	125	233	839	1	15	801	76		
Saturation Flow Module:														
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.95	0.92	1.00			
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.99	0.01	1.00	2.00			
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3696	4	1750	3800			
Capacity Analysis Module:														
Vol/Sat:	0.00	0.00	0.01	0.01	0.00	0.07	0.13	0.23	0.23	0.01	0.21			
Crit Moves:	*****													
Green Time:	7.0	12.3	12.3	8.6	13.9	13.9	26.0	51.3	51.3	15.8	41.1			
Volume/Cap:	0.06	0.04	0.07	0.15	0.03	0.51	0.51	0.44	0.44	0.05	0.51			
Delay/Veh:	43.6	38.7	38.9	42.6	37.3	41.7	32.6	15.5	15.5	35.8	22.3			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	43.6	38.7	38.9	42.6	37.3	41.7	32.6	15.5	15.5	35.8	22.3			
LOS by Move:	D	D	D	D	D	D	C	B	B	D	C			
HCM2kAvgQ:	0	0	1	1	0	4	6	8	8	0	9			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (AM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



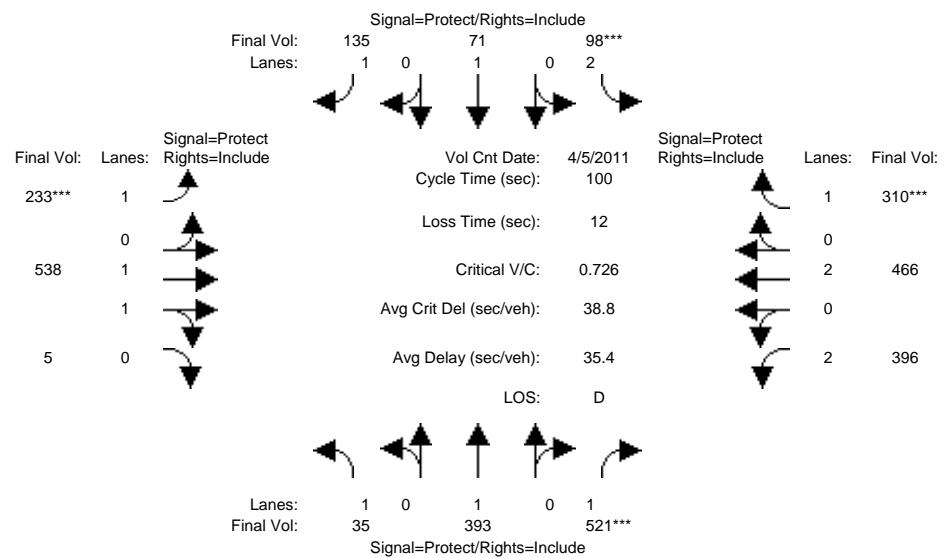
Street Name: Butterfield Boulevard												Tennant Avenue												
Approach:	North Bound				South Bound				East Bound				West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Min. Green:	7	10	10	7	10	10	7	10	10	10	7	10	10	7	10	10	7	10	10	10				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Volume Module: >> Count Date: 5 Apr 2011 <<																								
Base Vol:	35	393	521	98	71	134	232	505	5	396	459	310												
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
Initial Bse:	35	393	521	98	71	134	232	505	5	396	459	310												
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	35	393	521	98	71	134	232	505	5	396	459	310												
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
PHF Volume:	35	393	521	98	71	134	232	505	5	396	459	310												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	35	393	521	98	71	134	232	505	5	396	459	310												
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
FinalVolume:	35	393	521	98	71	134	232	505	5	396	459	310												
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.95	0.83	1.00	0.92												
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.98	0.02	2.00	2.00	1.00												
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3664	36	3150	3800	1750												
Capacity Analysis Module:																								
Vol/Sat:	0.02	0.21	0.30	0.03	0.04	0.08	0.13	0.14	0.14	0.13	0.12	0.18												
Crit Moves:	*****												*****											
Green Time:	19.2	39.7	39.7	7.0	27.5	27.5	17.7	21.6	21.6	19.7	23.6	23.6												
Volume/Cap:	0.10	0.52	0.75	0.44	0.14	0.28	0.75	0.64	0.64	0.64	0.51	0.75												
Delay/Veh:	33.4	23.6	30.4	46.1	27.4	28.8	48.9	37.4	37.4	39.1	33.7	42.9												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
AdjDel/Veh:	33.4	23.6	30.4	46.1	27.4	28.8	48.9	37.4	37.4	39.1	33.7	42.9												
LOS by Move:	C	C	C	D	C	C	D	D	D	D	C	D												
HCM2kAvgQ:	1	9	16	2	2	3	8	7	7	7	6	10												

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (AM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



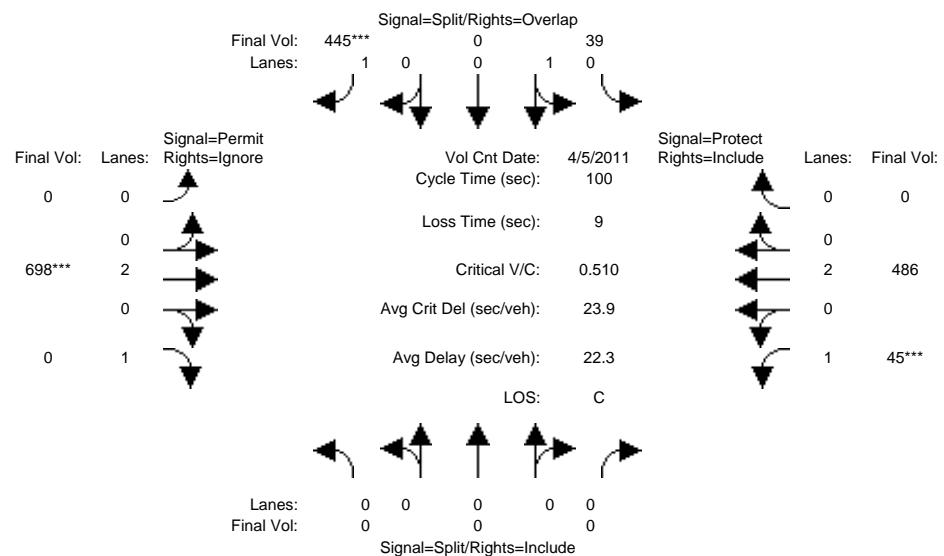
Street Name: Butterfield Boulevard												Tennant Avenue														
Approach:	North Bound				South Bound				East Bound				West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R						
Min. Green:	7	10	10	7	10	10	7	10	10	10	7	10	10	7	10	10	7	10	10	10						
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0						
Volume Module: >> Count Date: 5 Apr 2011 <<																										
Base Vol:	35	393	521	98	71	134	232	505	5	396	459	310														
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00														
Initial Bse:	35	393	521	98	71	134	232	505	5	396	459	310														
Added Vol:	0	0	0	0	0	1	1	33	0	0	0	7														
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0														
Initial Fut:	35	393	521	98	71	135	233	538	5	396	466	310														
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00														
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00														
PHF Volume:	35	393	521	98	71	135	233	538	5	396	466	310														
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0														
Reduced Vol:	35	393	521	98	71	135	233	538	5	396	466	310														
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00														
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00														
FinalVolume:	35	393	521	98	71	135	233	538	5	396	466	310														
Saturation Flow Module:																										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900														
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.95	0.83	1.00	0.92														
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.98	0.02	2.00	2.00	1.00														
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3666	34	3150	3800	1750														
Capacity Analysis Module:																										
Vol/Sat:	0.02	0.21	0.30	0.03	0.04	0.08	0.13	0.15	0.15	0.13	0.12	0.18														
Crit Moves:	*****												*****												*****	
Green Time:	19.2	39.7	39.7	7.0	27.4	27.4	17.7	22.3	22.3	19.1	23.6	23.6														
Volume/Cap:	0.10	0.52	0.75	0.44	0.14	0.28	0.75	0.66	0.66	0.66	0.52	0.75														
Delay/Veh:	33.4	23.6	30.5	46.1	27.5	28.8	48.8	37.4	37.4	40.2	33.8	43.0														
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00														
AdjDel/Veh:	33.4	23.6	30.5	46.1	27.5	28.8	48.8	37.4	37.4	40.2	33.8	43.0														
LOS by Move:	C	C	C	D	C	C	D	D	D	D	C	D														
HCM2kAvgQ:	1	9	16	2	2	3	8	8	8	7	6	10														

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (AM)

## Intersection #106: US 101 Southbound Ramps and Tennant Avenue



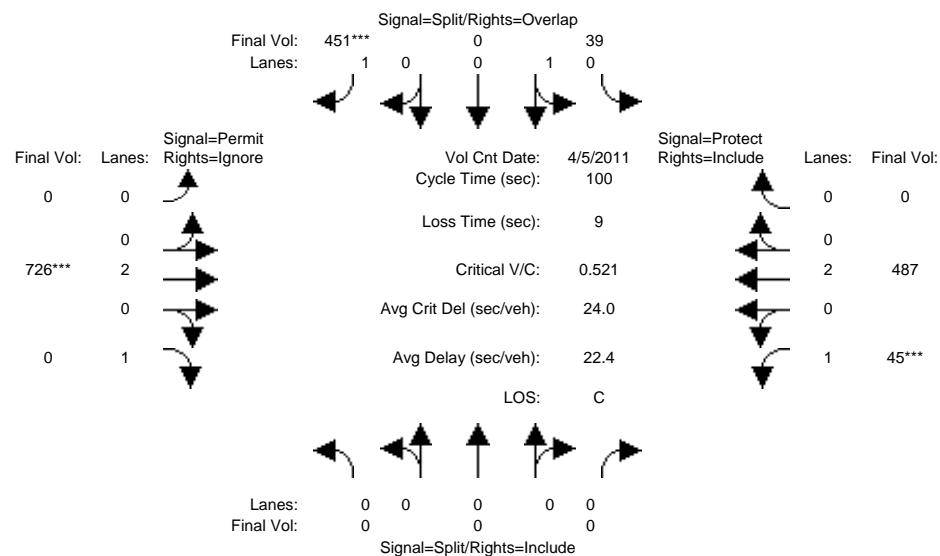
Street Name: US 101 Southbound Ramps												Tennant Avenue												
Approach: North Bound				South Bound				East Bound				West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R									
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10									
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0									
Volume Module: >> Count Date: 5 Apr 2011 <<																								
Base Vol:	0	0	0	39	0	445	0	698	181	45	486	0												
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	0	0	39	0	445	0	698	181	45	486	0												
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	0	0	0	39	0	445	0	698	181	45	486	0												
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	0	0	39	0	445	0	698	0	45	486	0												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	0	0	39	0	445	0	698	0	45	486	0												
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	0	0	0	39	0	445	0	698	0	45	486	0												
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	1.00	0.92	1.00	0.92	
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00	1.00	2.00	0.00	1.00	2.00	
Final Sat.:	0	0	0	1800	0	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	0	1750	3800	0	1750	3800	0
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.25	0.00	0.18	0.00	0.03	0.13	0.00												
Crit Moves:													*****											
Green Time:	0.0	0.0	0.0	48.8	0.0	48.8	0.0	35.2	0.0	7.0	42.2	0.0												
Volume/Cap:	0.00	0.00	0.00	0.04	0.00	0.52	0.00	0.52	0.00	0.37	0.30	0.00												
Delay/Veh:	0.0	0.0	0.0	13.4	0.0	18.2	0.0	26.1	0.0	46.3	19.2	0.0												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
AdjDel/Veh:	0.0	0.0	0.0	13.4	0.0	18.2	0.0	26.1	0.0	46.3	19.2	0.0												
LOS by Move:	A	A	A	B	A	B	A	C	A	D	B	A												
HCM2kAvgQ:	0	0	0	1	0	10	0	8	0	1	5	0												

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (AM)

## Intersection #106: US 101 Southbound Ramps and Tennant Avenue



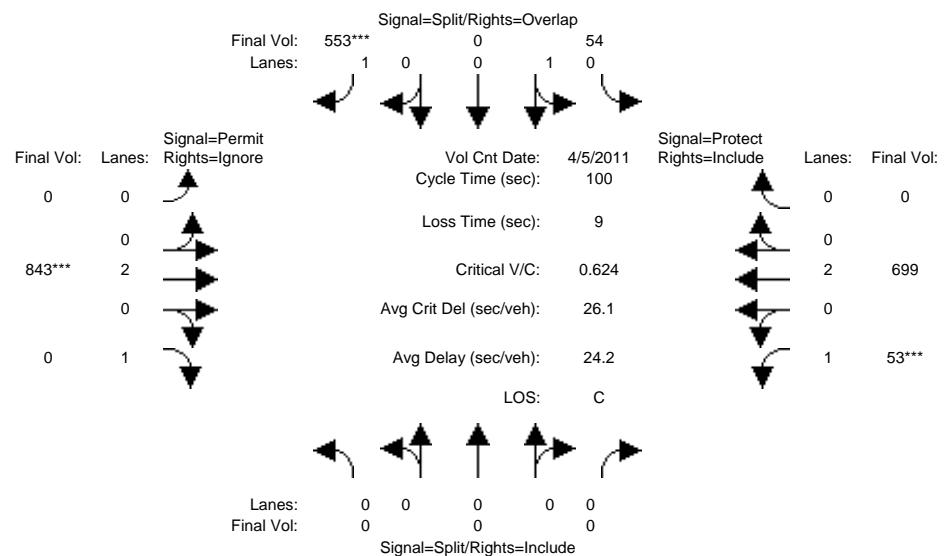
Street Name: US 101 Southbound Ramps												Tennant Avenue												
Approach:			North Bound				South Bound				East Bound				West Bound									
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Min. Green:	10	10	10	10	10	10	7	10	10	10	7	10	10	10	10	10	10	10	10	10				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Volume Module: >> Count Date: 5 Apr 2011 <<																								
Base Vol:	0	0	0	39	0	445	0	698	181	45	486	0												
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	0	0	39	0	445	0	698	181	45	486	0												
Added Vol:	0	0	0	0	0	0	6	0	28	4	0	1												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	0	0	0	39	0	451	0	726	185	45	487	0												
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00												
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00												
PHF Volume:	0	0	0	39	0	451	0	726	0	45	487	0												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	0	0	0	39	0	451	0	726	0	45	487	0												
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00												
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00												
FinalVolume:	0	0	0	39	0	451	0	726	0	45	487	0												
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900												
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.92	0.92	1.00	0.92	0.92	1.00												
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	1.00												
Final Sat.:	0	0	0	1800	0	1750	0	3800	1750	1750	3800	0												
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.26	0.00	0.19	0.00	0.03	0.13	0.00												
Crit Moves:													****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	0.0	0.0	0.0	48.2	0.0	48.2	0.0	35.8	0.0	7.0	42.8	0.0												
Volume/Cap:	0.00	0.00	0.00	0.04	0.00	0.53	0.00	0.53	0.00	0.37	0.30	0.00												
Delay/Veh:	0.0	0.0	0.0	13.7	0.0	18.7	0.0	25.9	0.0	46.3	18.9	0.0												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
AdjDel/Veh:	0.0	0.0	0.0	13.7	0.0	18.7	0.0	25.9	0.0	46.3	18.9	0.0												
LOS by Move:	A	A	A	B	A	B	A	C	A	D	B	A												
HCM2kAvgQ:	0	0	0	1	0	11	0	9	0	1	5	0												

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 2015+Cumulative+No+Project (AM)

## Intersection #106: US 101 Southbound Ramps and Tennant Avenue



Street Name: US 101 Southbound Ramps												Tennant Avenue														
Approach: North Bound				South Bound				East Bound				West Bound														
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-		
Min. Green:	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	53	699	0	10	10	10	10	10		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Volume Module: >> Count Date: 5 Apr 2011 <<																										
Base Vol:	0	0	0	54	0	553	0	843	243	53	699	0														
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	0	0	0	54	0	553	0	843	243	53	699	0														
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	0	0	0	54	0	553	0	843	243	53	699	0														
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	0	0	0	54	0	553	0	843	0	53	699	0														
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	0	0	54	0	553	0	843	0	53	699	0														
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	0	0	0	54	0	553	0	843	0	53	699	0														
Saturation Flow Module:																										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	1.00	0.92	1.00	0.92	1.00		
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00	2.00	1.00	1.00	2.00	0.00	2.00	1.00	1.00	2.00	0.00	2.00	
Final Sat.:	0	0	0	1800	0	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800
Capacity Analysis Module:																										
Vol/Sat:	0.00	0.00	0.00	0.03	0.00	0.32	0.00	0.22	0.00	0.03	0.18	0.00														
Crit Moves:																										
Green Time:	0.0	0.0	0.0	49.4	0.0	49.4	0.0	34.6	0.0	7.0	41.6	0.0														
Volume/Cap:	0.00	0.00	0.00	0.06	0.00	0.64	0.00	0.64	0.00	0.43	0.44	0.00														
Delay/Veh:	0.0	0.0	0.0	13.3	0.0	20.4	0.0	28.5	0.0	47.0	21.1	0.0														
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	0.0	0.0	0.0	13.3	0.0	20.4	0.0	28.5	0.0	47.0	21.1	0.0														
LOS by Move:	A	A	A	B	A	C	A	C	A	D	C	A														
HCM2kAvgQ:	0	0	0	1	0	14	0	11	0	2	7	0														

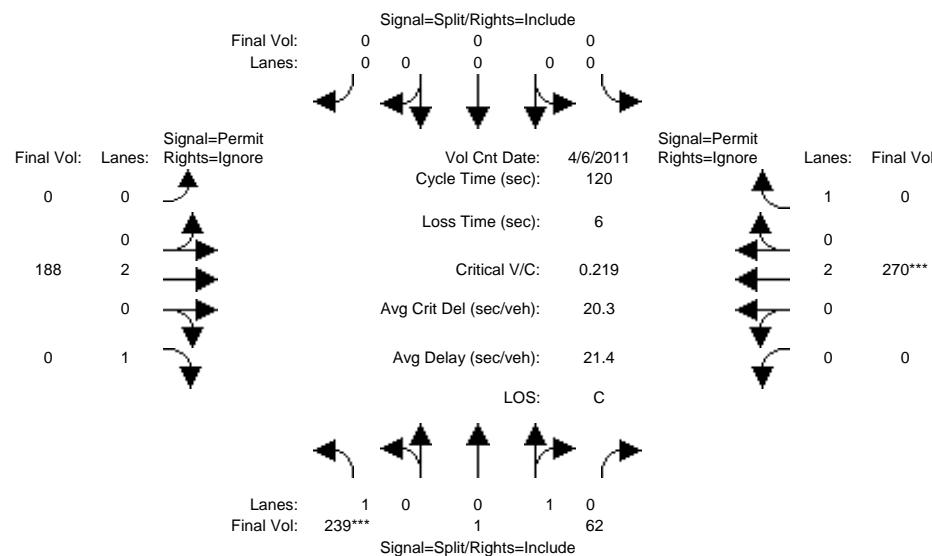
Note: Queue reported is the number of cars per lane.



## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 Existing (AM)

## Intersection #107: US 101 Northbound Ramps and Tennant Avenue



Street Name: US 101 Northbound Ramps												Tennant Avenue													
Approach: North Bound				South Bound				East Bound				West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 6 Apr 2011 <<																									
Base Vol:	239	1	62	0	0	0	0	188	597	0	270	87													
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	239	1	62	0	0	0	0	188	597	0	270	87													
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	239	1	62	0	0	0	0	188	597	0	270	87													
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	239	1	62	0	0	0	0	188	0	0	270	0													
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	239	1	62	0	0	0	0	188	0	0	270	0													
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	239	1	62	0	0	0	0	188	0	0	270	0													
Saturation Flow Module:																									
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	1.00	0.92	1.00	0.92	1.00	0.92	
Lanes:	1.00	0.02	0.98	0.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	
Final Sat.:	1750	29	1771	0	0	0	0	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750
Capacity Analysis Module:																									
Vol/Sat:	0.14	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.07	0.00												
Crit Moves:	*****																								
Green Time:	75.0	75.0	75.0	0.0	0.0	0.0	0.0	39.0	0.0	0.0	39.0	0.0													
Volume/Cap:	0.22	0.06	0.06	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.22	0.00													
Delay/Veh:	9.9	8.8	8.8	0.0	0.0	0.0	0.0	28.8	0.0	0.0	29.5	0.0													
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	9.9	8.8	8.8	0.0	0.0	0.0	0.0	28.8	0.0	0.0	29.5	0.0													
LOS by Move:	A	A	A	A	A	A	A	C	A	A	C	A													
HCM2kAvgQ:	4	1	1	0	0	0	0	2	0	0	3	0													

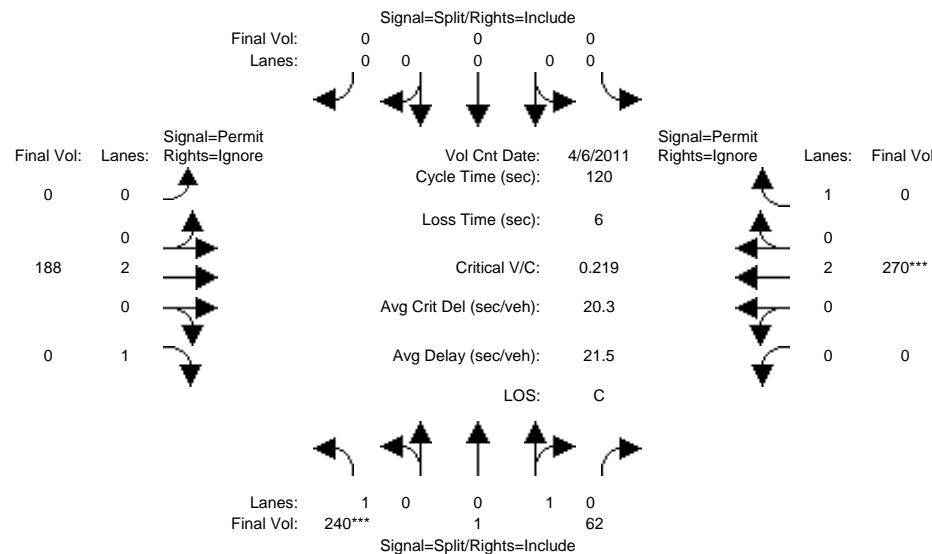
Note: Queue reported is the number of cars per lane.

Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (AM)

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Intersection #107: US 101 Northbound Ramps and Tennant Avenue

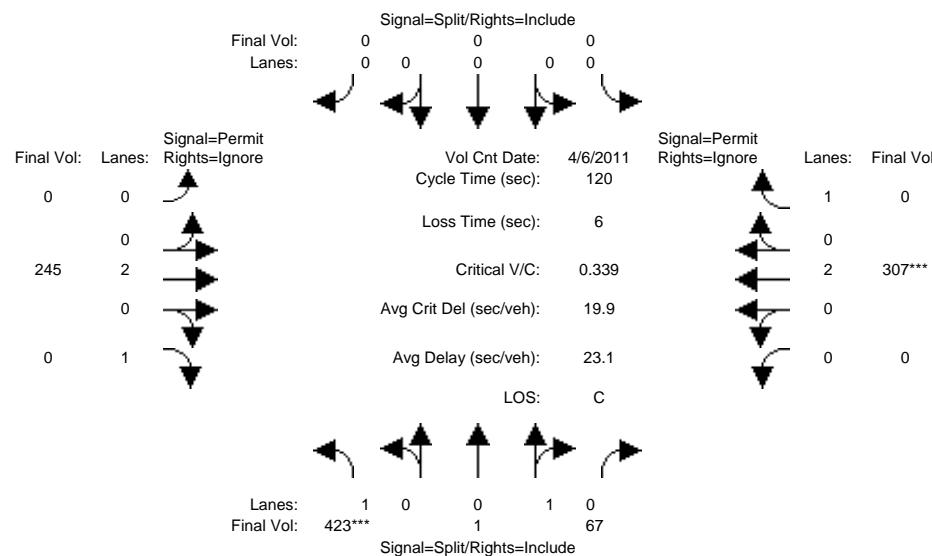


Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (AM)

## Intersection #107: US 101 Northbound Ramps and Tennant Avenue



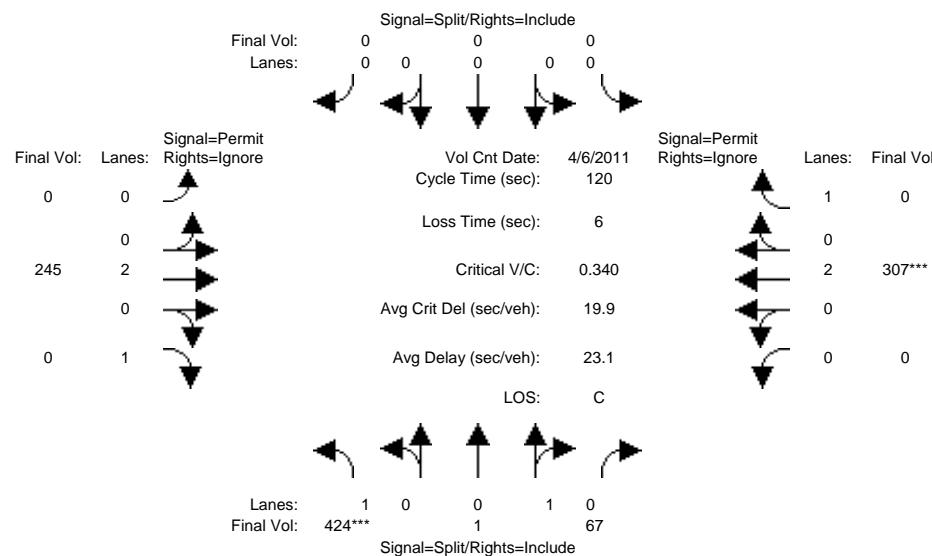
Street Name: US 101 Northbound Ramps												Tennant Avenue				
Approach:	North Bound			South Bound			East Bound			West Bound						
	Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 6 Apr 2011 <<																
Base Vol:	423	1	67	0	0	0	0	245	597	0	307	93				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	423	1	67	0	0	0	0	245	597	0	307	93				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	423	1	67	0	0	0	0	245	597	0	307	93				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Volume:	423	1	67	0	0	0	0	245	0	0	307	0				
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	423	1	67	0	0	0	0	245	0	0	307	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
FinalVolume:	423	1	67	0	0	0	0	245	0	0	307	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	0.01	0.99	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00				
Final Sat.:	1750	26	1774	0	0	0	0	3800	1750	0	3800	1750				
Capacity Analysis Module:																
Vol/Sat:	0.24	0.04	0.04	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.08	0.00				
Crit Moves:	****										****					
Green Time:	85.4	85.4	85.4	0.0	0.0	0.0	0.0	28.6	0.0	0.0	28.6	0.0				
Volume/Cap:	0.34	0.05	0.05	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.34	0.00				
Delay/Veh:	6.7	5.2	5.2	0.0	0.0	0.0	0.0	37.4	0.0	0.0	38.1	0.0				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	6.7	5.2	5.2	0.0	0.0	0.0	0.0	37.4	0.0	0.0	38.1	0.0				
LOS by Move:	A	A	A	A	A	A	A	D	A	A	D	A				
HCM2kAvgQ:	6	1	1	0	0	0	0	3	0	0	5	0				

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 2015+Cumulative+Project (AM)

## Intersection #107: US 101 Northbound Ramps and Tennant Avenue

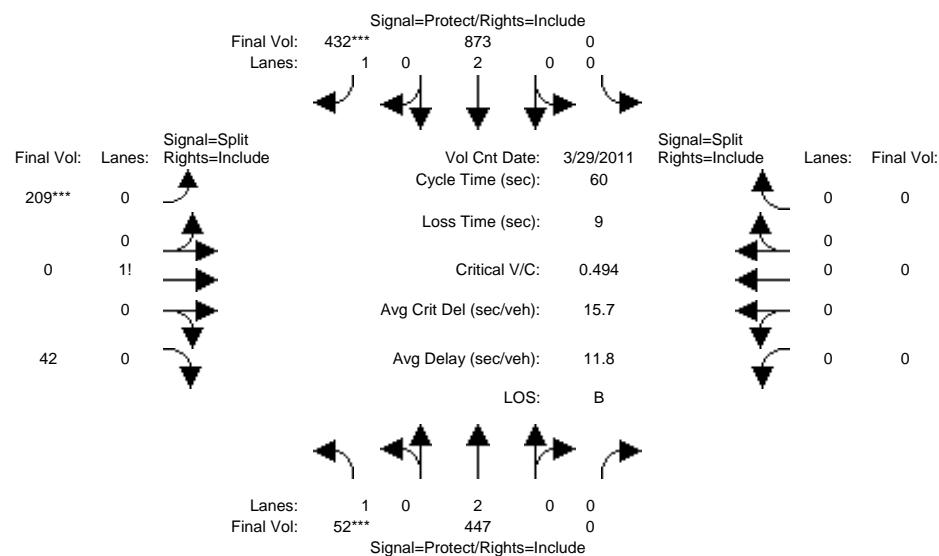


Street Name: US 101 Northbound Ramps												Tennant Avenue														
Approach: North Bound				South Bound				East Bound				West Bound														
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		
Volume Module: >> Count Date: 6 Apr 2011 <<																										
Base Vol:	423	1	67	0	0	0	0	245	597	0	307	93														
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	423	1	67	0	0	0	0	245	597	0	307	93														
Added Vol:	1	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	424	1	67	0	0	0	0	245	625	0	307	93														
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	424	1	67	0	0	0	0	245	0	0	307	0														
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	424	1	67	0	0	0	0	245	0	0	307	0														
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	424	1	67	0	0	0	0	245	0	0	307	0														
Saturation Flow Module:																										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	
Lanes:	1.00	0.01	0.99	0.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00	
Final Sat.:	1750	26	1774	0	0	0	0	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	1750	
Capacity Analysis Module:																										
Vol/Sat:	0.24	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.08	0.00													
Crit Moves:	*****																									
Green Time:	85.5	85.5	85.5	0.0	0.0	0.0	0.0	0.0	28.5	0.0	0.0	28.5	0.0													
Volume/Cap:	0.34	0.05	0.05	0.00	0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.34	0.00													
Delay/Veh:	6.7	5.2	5.2	0.0	0.0	0.0	0.0	0.0	37.4	0.0	0.0	38.2	0.0													
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	6.7	5.2	5.2	0.0	0.0	0.0	0.0	0.0	37.4	0.0	0.0	38.2	0.0													
LOS by Move:	A	A	A	A	A	A	A	A	D	A	A	D	A	A	D	A	A	D	A	A	D	A	A	D		
HCM2kAvgQ:	6	1	1	0	0	0	0	0	3	0	0	5	0													

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

Intersection #101: Monterey Road and Watsonville Road



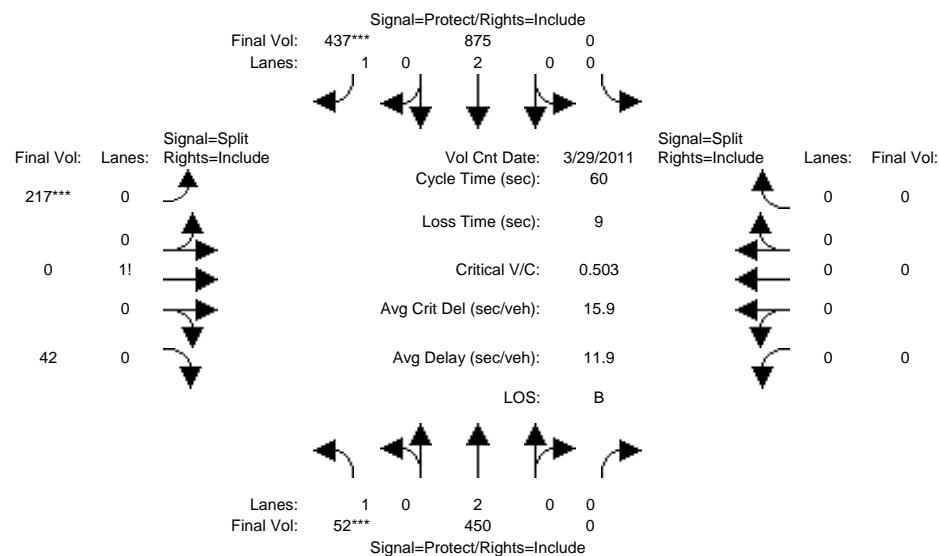
Street Name: Monterey Road												Watsonville Road													
Approach: North Bound				South Bound				East Bound				West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	
Min. Green:	7	10	10	7	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 29 Mar 2011 <<																									
Base Vol:	52	447	0	0	873	432	209	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	52	447	0	0	873	432	209	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	52	447	0	0	873	432	209	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	52	447	0	0	873	432	209	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	52	447	0	0	873	432	209	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	52	447	0	0	873	432	209	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Saturation Flow Module:																									
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.00	0.92	1.00	0.92	0.92	1.00	0.92	0.92
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.83	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Final Sat.:	1750	3800	0	0	3800	1750	1457	0	293	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capacity Analysis Module:																									
Vol/Sat:	0.03	0.12	0.00	0.00	0.23	0.25	0.14	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****
Green Time:	7.0	34.8	0.0	0.0	27.8	27.8	16.2	0.0	16.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Volume/Cap:	0.25	0.20	0.00	0.00	0.50	0.53	0.53	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Delay/Veh:	24.8	6.0	0.0	0.0	11.4	12.1	19.9	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	24.8	6.0	0.0	0.0	11.4	12.1	19.9	0.0	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
LOS by Move:	C	A	A	A	B	B	B	A	B	A	A	A	A	A	A	A	A	A	A	A	A	A	A		
HCM2kAvgQ:	1	2	0	0	5	6	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #101: Monterey Road and Watsonville Road



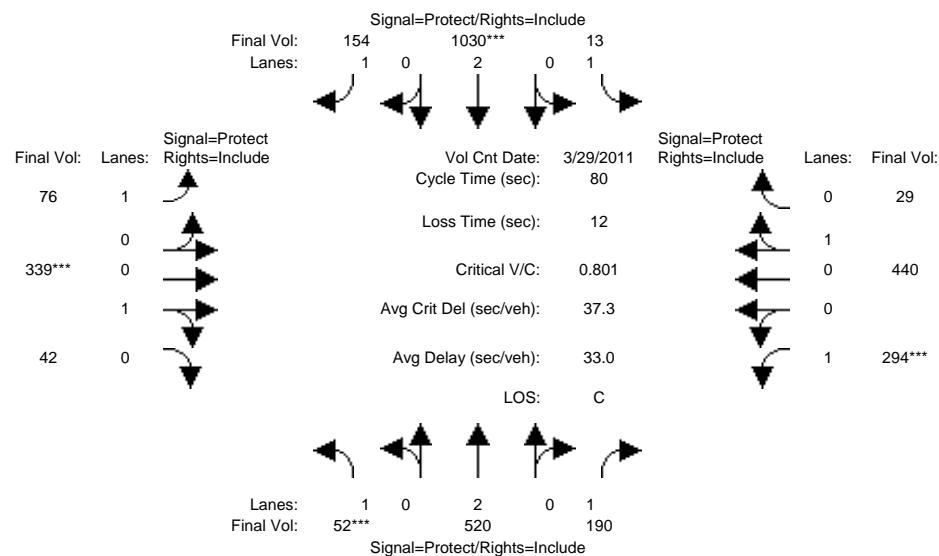
Street Name: Monterey Road Watsonville Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		10 10		10 10		10 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 29 Mar 2011 <<															
Base Vol:	52	447	0	0	873	432	209	0	42	0	0	0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	52	447	0	0	873	432	209	0	42	0	0	0	0		
Added Vol:	0	3	0	0	2	5	8	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:	52	450	0	0	875	437	217	0	42	0	0	0	0		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	52	450	0	0	875	437	217	0	42	0	0	0	0		
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	52	450	0	0	875	437	217	0	42	0	0	0	0		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	52	450	0	0	875	437	217	0	42	0	0	0	0		
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.92	0.92	0.92	1.00	0.92	0.92		
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.84	0.00	0.16	0.00	0.00	0.00	0.00		
Final Sat.:	1750	3800	0	0	3800	1750	1466	0	284	0	0	0	0		
Capacity Analysis Module:															
Vol/Sat:	0.03	0.12	0.00	0.00	0.23	0.25	0.15	0.00	0.15	0.00	0.00	0.00	0.00		
Crit Moves:	*****														
Green Time:	7.0	34.6	0.0	0.0	27.6	27.6	16.4	0.0	16.4	0.0	0.0	0.0	0.0		
Volume/Cap:	0.25	0.21	0.00	0.00	0.50	0.54	0.54	0.00	0.54	0.00	0.00	0.00	0.00		
Delay/Veh:	24.8	6.1	0.0	0.0	11.6	12.4	19.9	0.0	19.9	0.0	0.0	0.0	0.0		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	24.8	6.1	0.0	0.0	11.6	12.4	19.9	0.0	19.9	0.0	0.0	0.0	0.0		
LOS by Move:	C	A	A	A	B	B	B	A	B	A	A	A			
HCM2kAvgQ:	1	2	0	0	6	6	4	0	4	0	0	0			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (PM)

## Intersection #101: Monterey Road and Watsonville Road



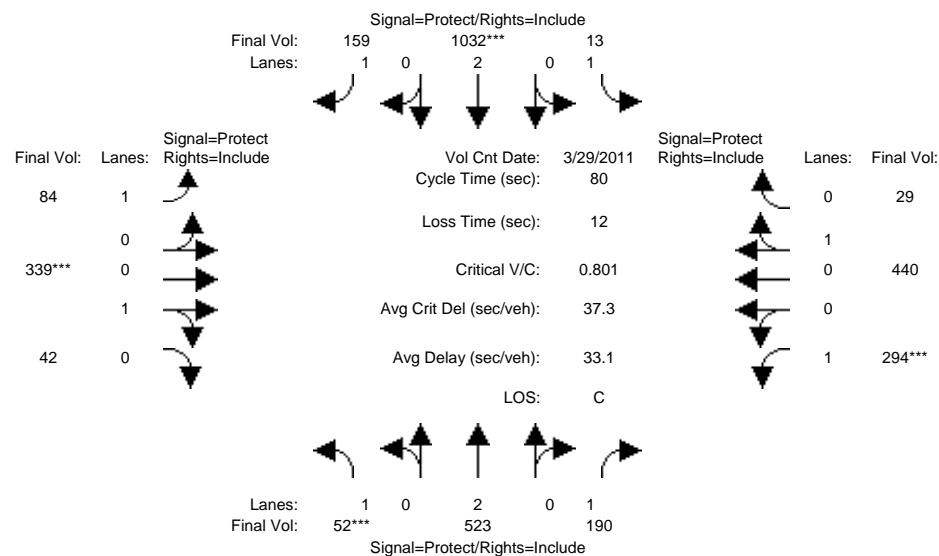
Street Name: Monterey Road Watsonville Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	7	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 29 Mar 2011 <<															
Base Vol:	52	520	190	13	1030	154	76	339	42	294	440	29			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	52	520	190	13	1030	154	76	339	42	294	440	29			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	52	520	190	13	1030	154	76	339	42	294	440	29			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	52	520	190	13	1030	154	76	339	42	294	440	29			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	52	520	190	13	1030	154	76	339	42	294	440	29			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	52	520	190	13	1030	154	76	339	42	294	440	29			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.89	0.11	1.00	0.94	0.06			
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1602	198	1750	1689	111			
Capacity Analysis Module:															
Vol/Sat:	0.03	0.14	0.11	0.01	0.27	0.09	0.04	0.21	0.21	0.17	0.26	0.26			
Crit Moves:	****			****			****			****					
Green Time:	7.0	19.8	19.8	12.6	25.4	25.4	8.9	19.8	19.8	15.7	26.6	26.6			
Volume/Cap:	0.34	0.55	0.44	0.05	0.85	0.28	0.39	0.85	0.85	0.85	0.78	0.78			
Delay/Veh:	35.7	27.0	26.2	28.6	31.6	20.7	34.3	43.4	43.4	49.3	30.7	30.7			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	35.7	27.0	26.2	28.6	31.6	20.7	34.3	43.4	43.4	49.3	30.7	30.7			
LOS by Move:	D	C	C	C	C	C	C	D	D	D	C	C			
HCM2kAvgQ:	1	6	4	0	13	3	2	10	10	11	13	13			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (PM)

## Intersection #101: Monterey Road and Watsonville Road



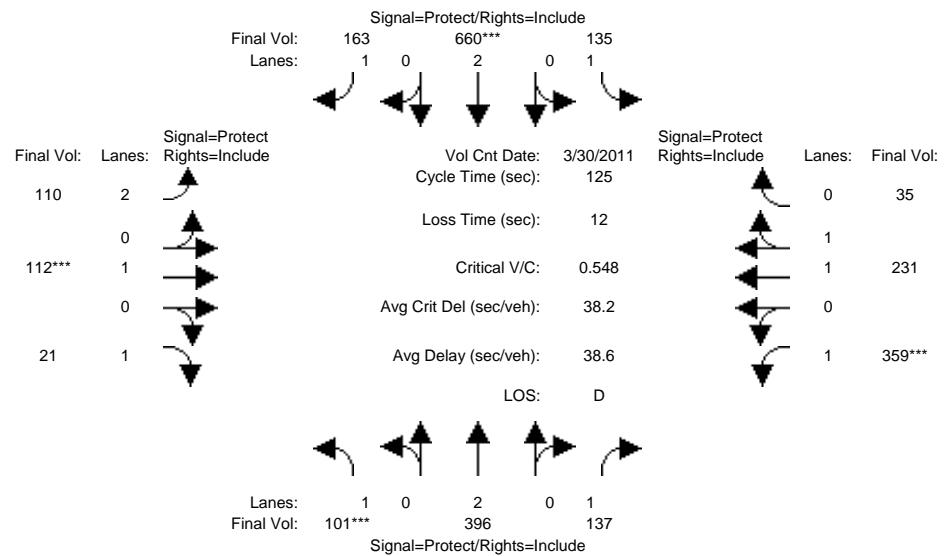
Street Name: Monterey Road Watsonville Road															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	7	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 29 Mar 2011 <<															
Base Vol:	52	520	190	13	1030	154	76	339	42	294	440	29			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	52	520	190	13	1030	154	76	339	42	294	440	29			
Added Vol:	0	3	0	0	2	5	8	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	52	523	190	13	1032	159	84	339	42	294	440	29			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	52	523	190	13	1032	159	84	339	42	294	440	29			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	52	523	190	13	1032	159	84	339	42	294	440	29			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	52	523	190	13	1032	159	84	339	42	294	440	29			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	0.95	0.95	0.92	0.95				
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	0.89	0.11	1.00	0.94				
Final Sat.:	1750	3800	1750	1750	3800	1750	1750	1602	198	1750	1689				
Capacity Analysis Module:															
Vol/Sat:	0.03	0.14	0.11	0.01	0.27	0.09	0.05	0.21	0.21	0.17	0.26				
Crit Moves:	****			****			****			****					
Green Time:	7.0	19.8	19.8	12.6	25.4	25.4	8.9	19.8	19.8	15.7	26.6				
Volume/Cap:	0.34	0.56	0.44	0.05	0.85	0.29	0.43	0.85	0.85	0.85	0.78				
Delay/Veh:	35.7	27.0	26.1	28.7	31.7	20.8	34.7	43.5	43.5	49.4	30.7				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	35.7	27.0	26.1	28.7	31.7	20.8	34.7	43.5	43.5	49.4	30.7				
LOS by Move:	D	C	C	C	C	C	C	D	D	D	C				
HCM2kAvgQ:	1	6	4	0	13	3	2	10	10	11	13				

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

## Intersection #102: Monterey Road and Vineyard Boulevard



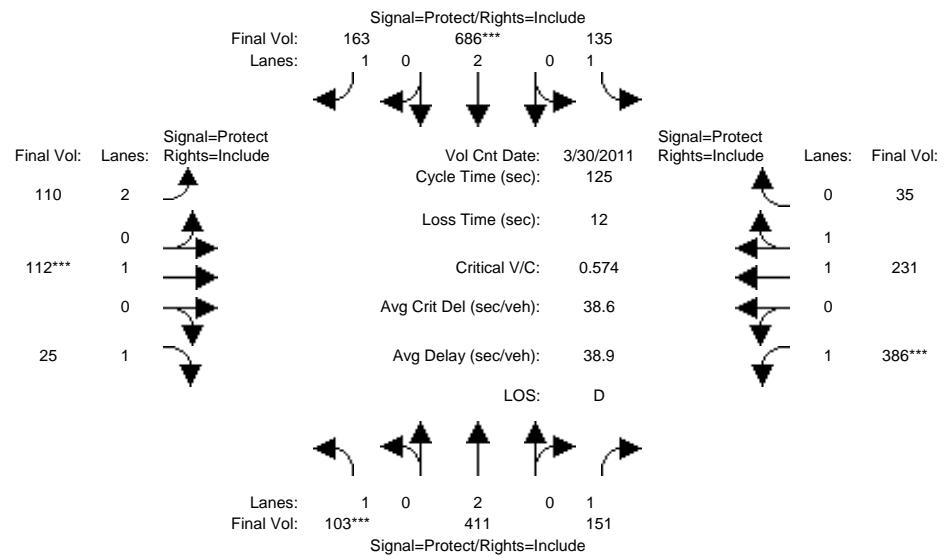
Street Name: Monterey Road Vineyard Boulevard																		
Approach:	North Bound			South Bound			East Bound			West Bound								
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R			
Min. Green:	7		10	10		7	10		10	7		10	10					
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0					
Volume Module: >> Count Date: 30 Mar 2011 <<																		
Base Vol:	101		396	137		135	660		163	110		112	21		359	231		35
Growth Adj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Initial Bse:	101		396	137		135	660		163	110		112	21		359	231		35
Added Vol:	0		0	0		0	0		0	0		0	0		0	0		0
PasserByVol:	0		0	0		0	0		0	0		0	0		0	0		0
Initial Fut:	101		396	137		135	660		163	110		112	21		359	231		35
User Adj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
PHF Adj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
PHF Volume:	101		396	137		135	660		163	110		112	21		359	231		35
Reduc Vol:	0		0	0		0	0		0	0		0	0		0	0		0
Reduced Vol:	101		396	137		135	660		163	110		112	21		359	231		35
PCE Adj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
MLF Adj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
FinalVolume:	101		396	137		135	660		163	110		112	21		359	231		35
Saturation Flow Module:																		
Sat/Lane:	1900		1900	1900		1900	1900		1900	1900		1900	1900		1900	1900		1900
Adjustment:	0.92		1.00	0.92		0.92	1.00		0.92	0.83		1.00	0.92		0.92	0.98		0.95
Lanes:	1.00		2.00	1.00		1.00	2.00		1.00	2.00		1.00	1.00		1.00	1.73		0.27
Final Sat.:	1750		3800	1750		1750	3800		1750	3150		1900	1750		1750	3213		487
Capacity Analysis Module:																		
Vol/Sat:	0.06		0.10	0.08		0.08	0.17		0.09	0.03		0.06	0.01		0.21	0.07		0.07
Crit Moves:	****		****	****		****	****		****	****		****	****		****	****		****
Green Time:	13.2		30.3	30.3		22.4	39.6		39.6	24.8		13.4	13.4		46.8	35.4		35.4
Volume/Cap:	0.55		0.43	0.32		0.43	0.55		0.29	0.18		0.55	0.11		0.55	0.25		0.25
Delay/Veh:	56.6		40.3	39.3		46.5	35.8		32.5	41.7		56.0	50.6		31.8	34.7		34.7
User DelAdj:	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
AdjDel/Veh:	56.6		40.3	39.3		46.5	35.8		32.5	41.7		56.0	50.6		31.8	34.7		34.7
LOS by Move:	E	D	D	D	D	C	D	E	D	C	C	C	C	C	C	C	C	
HCM2kAvgQ:	4	6	4	5	10	5	2	4	1	12	4	4						

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #102: Monterey Road and Vineyard Boulevard



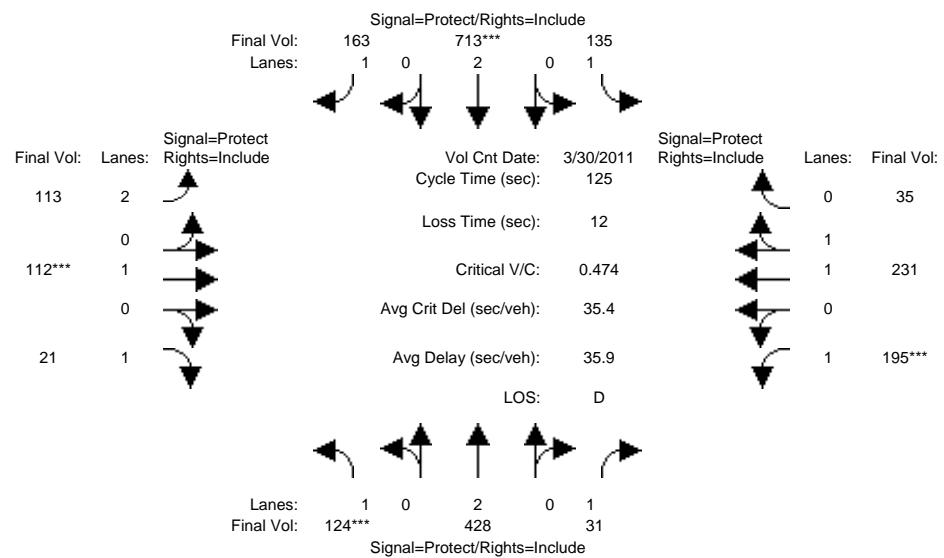
Street Name: Monterey Road Vineyard Boulevard															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 30 Mar 2011 <<															
Base Vol:	101	396	137	135	660	163	110	112	21	359	231	35			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	101	396	137	135	660	163	110	112	21	359	231	35			
Added Vol:	2	15	14	0	26	0	0	0	4	27	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	103	411	151	135	686	163	110	112	25	386	231	35			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	103	411	151	135	686	163	110	112	25	386	231	35			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	103	411	151	135	686	163	110	112	25	386	231	35			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	103	411	151	135	686	163	110	112	25	386	231	35			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.73	0.27			
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	1900	1750	1750	3213	487			
Capacity Analysis Module:															
Vol/Sat:	0.06	0.11	0.09	0.08	0.18	0.09	0.03	0.06	0.01	0.22	0.07	0.07			
Crit Moves:	****			****			****			****					
Green Time:	12.8	30.4	30.4	21.7	39.3	39.3	25.1	12.8	12.8	48.0	35.8	35.8			
Volume/Cap:	0.57	0.44	0.35	0.44	0.57	0.30	0.17	0.57	0.14	0.57	0.25	0.25			
Delay/Veh:	58.0	40.5	39.7	47.3	36.5	32.7	41.5	57.6	51.4	31.6	34.4	34.4			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	58.0	40.5	39.7	47.3	36.5	32.7	41.5	57.6	51.4	31.6	34.4	34.4			
LOS by Move:	E	D	D	D	D	C	D	E	D	C	C	C			
HCM2kAvgQ:	4	6	5	5	11	5	2	4	1	13	4	4			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (PM)

## Intersection #102: Monterey Road and Vineyard Boulevard



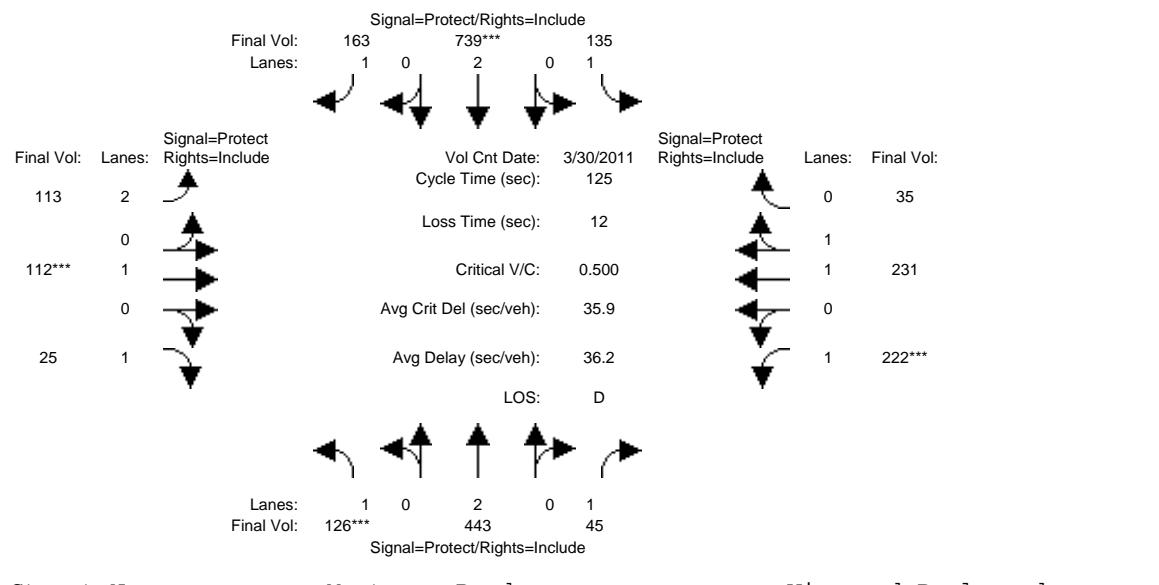
Street Name: Monterey Road Vineyard Boulevard															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 7		10 7		10 7		10 7		10 7		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 30 Mar 2011 <<															
Base Vol:	124	428	31	135	713	163	113	112	21	195	231	35			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	124	428	31	135	713	163	113	112	21	195	231	35			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	124	428	31	135	713	163	113	112	21	195	231	35			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	124	428	31	135	713	163	113	112	21	195	231	35			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	124	428	31	135	713	163	113	112	21	195	231	35			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	124	428	31	135	713	163	113	112	21	195	231	35			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.73	0.27			
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	1900	1750	1750	3213	487			
Capacity Analysis Module:															
Vol/Sat:	0.07	0.11	0.02	0.08	0.19	0.09	0.04	0.06	0.01	0.11	0.07	0.07			
Crit Moves:	****			****			****			****					
Green Time:	18.7	40.4	40.4	27.7	49.4	49.4	18.5	15.5	15.5	29.4	26.4	26.4			
Volume/Cap:	0.47	0.35	0.05	0.35	0.47	0.24	0.24	0.47	0.10	0.47	0.34	0.34			
Delay/Veh:	50.0	32.4	29.2	41.6	28.4	25.4	47.3	52.4	48.7	42.0	42.2	42.2			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	50.0	32.4	29.2	41.6	28.4	25.4	47.3	52.4	48.7	42.0	42.2	42.2			
LOS by Move:	D	C	C	D	C	C	D	D	D	D	D	D			
HCM2kAvgQ:	5	6	1	5	10	4	2	4	1	7	5	5			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (PM)

## Intersection #102: Monterey Road and Vineyard Boulevard



Street Name: Monterey Road Vineyard Boulevard															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10	10		7	10		10	7		10	10		
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Volume Module: >> Count Date: 30 Mar 2011 <<															
Base Vol:	124	428	31	135	713	163	113	112	21	195	231	35			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	124	428	31	135	713	163	113	112	21	195	231	35			
Added Vol:	2	15	14	0	26	0	0	0	4	27	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	126	443	45	135	739	163	113	112	25	222	231	35			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	126	443	45	135	739	163	113	112	25	222	231	35			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	126	443	45	135	739	163	113	112	25	222	231	35			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	126	443	45	135	739	163	113	112	25	222	231	35			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.98	0.95			
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	1.00	1.00	1.00	1.73	0.27			
Final Sat.:	1750	3800	1750	1750	3800	1750	3150	1900	1750	1750	3213	487			
Capacity Analysis Module:															
Vol/Sat:	0.07	0.12	0.03	0.08	0.19	0.09	0.04	0.06	0.01	0.13	0.07	0.07			
Crit Moves:	****			****			****			****					
Green Time:	18.0	40.1	40.1	26.5	48.6	48.6	19.1	14.7	14.7	31.7	27.3	27.3			
Volume/Cap:	0.50	0.36	0.08	0.36	0.50	0.24	0.23	0.50	0.12	0.50	0.33	0.33			
Delay/Veh:	50.9	32.8	29.7	42.7	29.3	25.9	46.8	53.4	49.6	40.8	41.4	41.4			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	50.9	32.8	29.7	42.7	29.3	25.9	46.8	53.4	49.6	40.8	41.4	41.4			
LOS by Move:	D	C	C	D	C	C	D	D	D	D	D	D			
HCM2kAvgQ:	5	6	1	5	10	4	2	4	1	8	4	4			

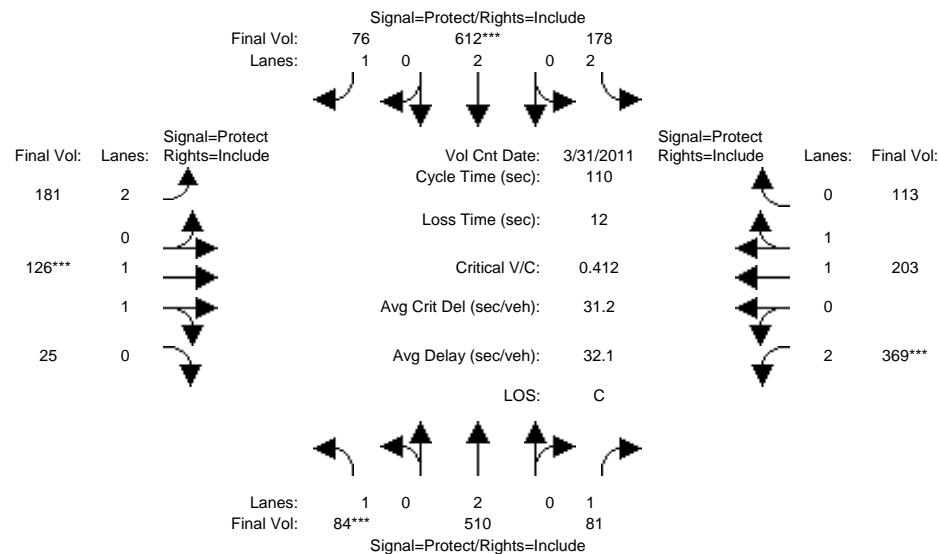
Note: Queue reported is the number of cars per lane.

Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

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#### Intersection #103: Monterey Road and Tennant Avenue

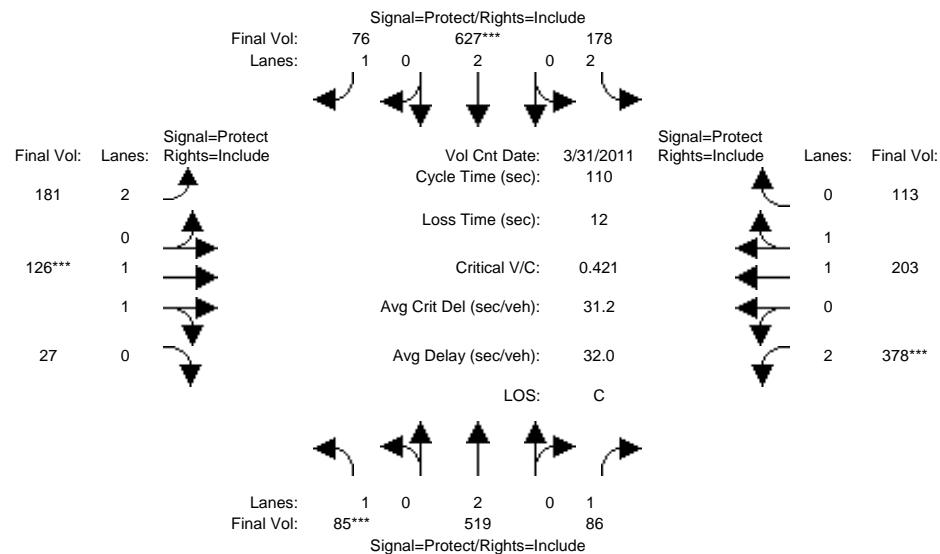


Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #103: Monterey Road and Tennant Avenue



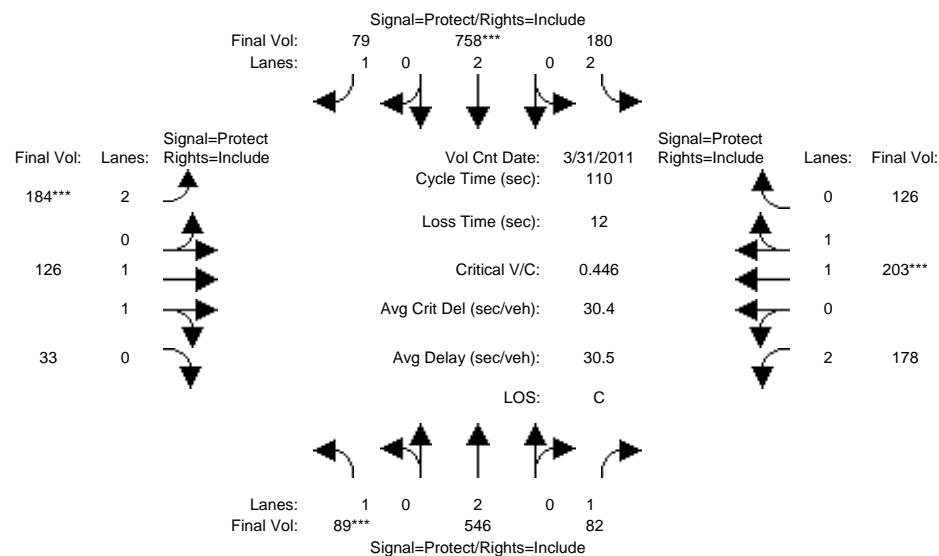
Street Name: Monterey Road Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10	10		7	10		10	7		10	10		
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Volume Module: >> Count Date: 31 Mar 2011 <<															
Base Vol:	84	510	81	178	612	76	181	126	25	369	203	113			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	84	510	81	178	612	76	181	126	25	369	203	113			
Added Vol:	1	9	5	0	15	0	0	0	2	9	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	85	519	86	178	627	76	181	126	27	378	203	113			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	85	519	86	178	627	76	181	126	27	378	203	113			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	85	519	86	178	627	76	181	126	27	378	203	113			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	85	519	86	178	627	76	181	126	27	378	203	113			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95			
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	1.64	0.36	2.00	1.27	0.73			
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	3047	653	3150	2376	1323			
Capacity Analysis Module:															
Vol/Sat:	0.05	0.14	0.05	0.06	0.17	0.04	0.06	0.04	0.04	0.12	0.09	0.09			
Crit Moves:	****			****			****			****					
Green Time:	12.7	38.1	38.1	17.7	43.1	43.1	17.4	10.8	10.8	31.4	24.8	24.8			
Volume/Cap:	0.42	0.39	0.14	0.35	0.42	0.11	0.36	0.42	0.42	0.42	0.38	0.38			
Delay/Veh:	46.7	27.4	24.8	41.4	24.5	21.3	41.8	47.4	47.4	32.3	36.4	36.4			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	46.7	27.4	24.8	41.4	24.5	21.3	41.8	47.4	47.4	32.3	36.4	36.4			
LOS by Move:	D	C	C	D	C	C	D	D	D	C	D	D			
HCM2kAvgQ:	3	6	2	3	7	2	3	2	2	6	4	4			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (PM)

## Intersection #103: Monterey Road and Tennant Avenue



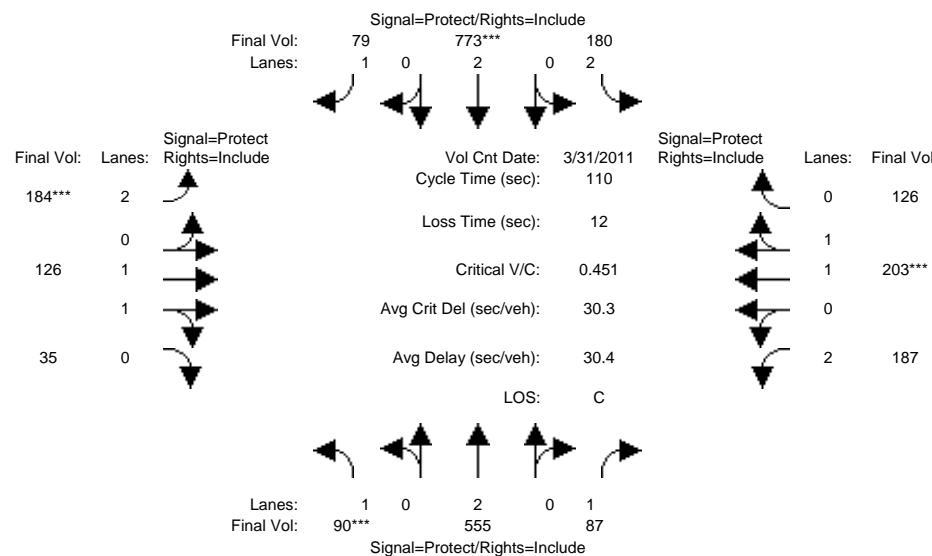
Street Name: Monterey Road Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10	10		7	10		10	7		10	10		
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Volume Module: >> Count Date: 31 Mar 2011 <<															
Base Vol:	89	546	82	180	758	79	184	126	33	178	203	126			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	89	546	82	180	758	79	184	126	33	178	203	126			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	89	546	82	180	758	79	184	126	33	178	203	126			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	89	546	82	180	758	79	184	126	33	178	203	126			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	89	546	82	180	758	79	184	126	33	178	203	126			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	89	546	82	180	758	79	184	126	33	178	203	126			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95			
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	1.57	0.43	2.00	1.21	0.79			
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	2932	768	3150	2282	1416			
Capacity Analysis Module:															
Vol/Sat:	0.05	0.14	0.05	0.06	0.20	0.05	0.06	0.04	0.04	0.06	0.09	0.09			
Crit Moves:	****			****		****	****			****					
Green Time:	12.5	42.8	42.8	18.9	49.2	49.2	14.4	21.4	21.4	15.0	21.9	21.9			
Volume/Cap:	0.45	0.37	0.12	0.33	0.45	0.10	0.45	0.22	0.22	0.42	0.45	0.45			
Delay/Veh:	47.1	24.2	21.6	40.3	21.2	17.7	44.9	37.5	37.5	44.2	39.1	39.1			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	47.1	24.2	21.6	40.3	21.2	17.7	44.9	37.5	37.5	44.2	39.1	39.1			
LOS by Move:	D	C	C	D	C	B	D	D	D	D	D	D			
HCM2kAvgQ:	3	6	2	3	9	2	3	2	2	3	5	5			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 2015+Cumulative+Project (PM)

## Intersection #103: Monterey Road and Tennant Avenue



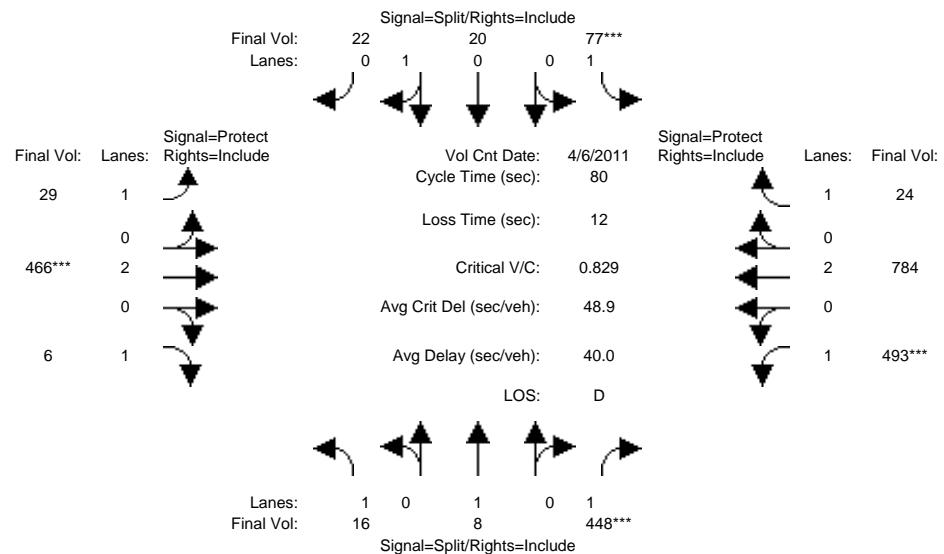
Street Name: Monterey Road Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10	10		7	10		10	7		10	10		
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Volume Module: >> Count Date: 31 Mar 2011 <<															
Base Vol:	89	546	82	180	758	79	184	126	33	178	203	126			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	89	546	82	180	758	79	184	126	33	178	203	126			
Added Vol:	1	9	5	0	15	0	0	0	2	9	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	90	555	87	180	773	79	184	126	35	187	203	126			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	90	555	87	180	773	79	184	126	35	187	203	126			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	90	555	87	180	773	79	184	126	35	187	203	126			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	90	555	87	180	773	79	184	126	35	187	203	126			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.83	0.98	0.95	0.83	0.99	0.95			
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	2.00	1.55	0.45	2.00	1.21	0.79			
Final Sat.:	1750	3800	1750	3150	3800	1750	3150	2895	804	3150	2282	1416			
Capacity Analysis Module:															
Vol/Sat:	0.05	0.15	0.05	0.06	0.20	0.05	0.06	0.04	0.04	0.06	0.09	0.09			
Crit Moves:	****			****			****			****					
Green Time:	12.5	43.2	43.2	18.8	49.6	49.6	14.2	21.1	21.1	14.8	21.7	21.7			
Volume/Cap:	0.45	0.37	0.13	0.33	0.45	0.10	0.45	0.23	0.23	0.44	0.45	0.45			
Delay/Veh:	47.1	23.9	21.4	40.4	21.0	17.4	45.1	37.7	37.7	44.5	39.4	39.4			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	47.1	23.9	21.4	40.4	21.0	17.4	45.1	37.7	37.7	44.5	39.4	39.4			
LOS by Move:	D	C	C	D	C	B	D	D	D	D	D	D			
HCM2kAvgQ:	3	6	2	3	9	2	3	2	2	3	5	5			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

## Intersection #104: Vineyard Boulevard and Tenant Avenue



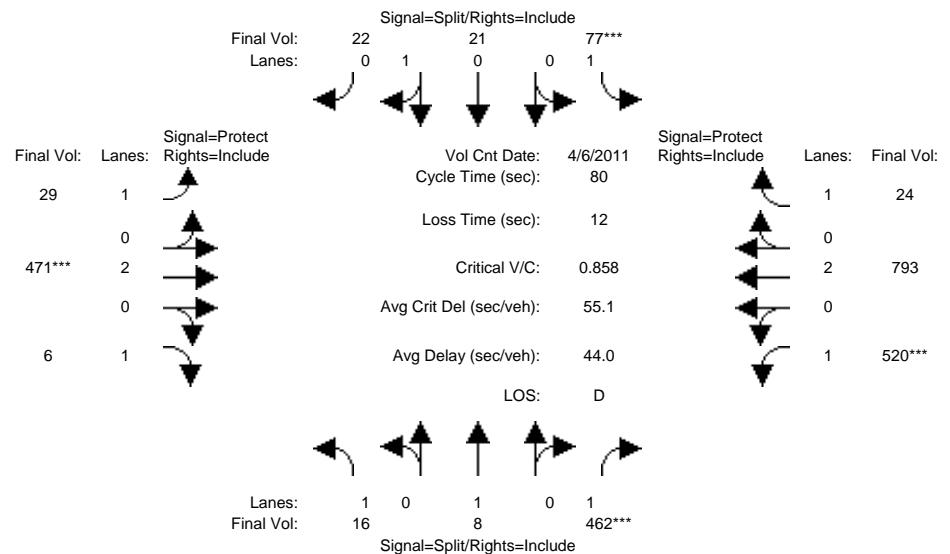
Street Name: Vineyard Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10 10		10 10		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 6 Apr 2011 <<															
Base Vol:	16	8	448	77	20	22	29	466	6	493	784	24			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	16	8	448	77	20	22	29	466	6	493	784	24			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	16	8	448	77	20	22	29	466	6	493	784	24			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	16	8	448	77	20	22	29	466	6	493	784	24			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	16	8	448	77	20	22	29	466	6	493	784	24			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	16	8	448	77	20	22	29	466	6	493	784	24			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92				
Lanes:	1.00	1.00	1.00	0.48	0.52	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1750	1900	1750	857	943	1750	3800	1750	1750	3800	1750				
Capacity Analysis Module:															
Vol/Sat:	0.01	0.00	0.26	0.04	0.02	0.02	0.02	0.12	0.00	0.28	0.21	0.01			
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****			
Green Time:	22.5	22.5	22.5	10.0	10.0	10.0	10.6	10.8	10.8	24.7	24.9	24.9			
Volume/Cap:	0.03	0.01	0.91	0.35	0.19	0.19	0.13	0.91	0.03	0.91	0.66	0.04			
Delay/Veh:	20.9	20.8	48.8	33.0	31.8	31.8	30.9	54.6	30.1	46.1	25.3	19.2			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	20.9	20.8	48.8	33.0	31.8	31.8	30.9	54.6	30.1	46.1	25.3	19.2			
LOS by Move:	C	C	D	C	C	C	C	D	C	D	C	B			
HCM2kAvgQ:	0	0	16	2	1	1	1	7	0	14	8	0			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #104: Vineyard Boulevard and Tenant Avenue



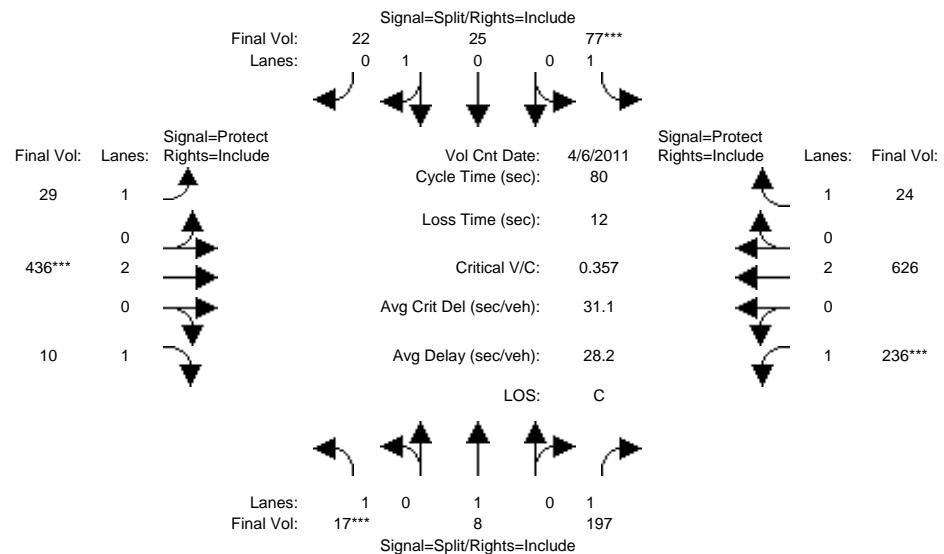
Street Name: Vineyard Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10 10		10 10		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 6 Apr 2011 <<															
Base Vol:	16	8	448	77	20	22	29	466	6	493	784	24			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	16	8	448	77	20	22	29	466	6	493	784	24			
Added Vol:	0	0	14	0	1	0	0	5	0	27	9	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	16	8	462	77	21	22	29	471	6	520	793	24			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	16	8	462	77	21	22	29	471	6	520	793	24			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	16	8	462	77	21	22	29	471	6	520	793	24			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	16	8	462	77	21	22	29	471	6	520	793	24			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00				
Lanes:	1.00	1.00	1.00	0.49	0.51	1.00	2.00	1.00	1.00	2.00	1.00				
Final Sat.:	1750	1900	1750	1750	879	921	1750	3800	1750	1750	3800				
Capacity Analysis Module:															
Vol/Sat:	0.01	0.00	0.26	0.04	0.02	0.02	0.02	0.12	0.00	0.30	0.21	0.01			
Crit Moves:	*****			*****			*****			*****					
Green Time:	22.4	22.4	22.4	10.0	10.0	10.0	10.5	10.5	10.5	25.2	25.1	25.1			
Volume/Cap:	0.03	0.02	0.94	0.35	0.19	0.19	0.13	0.94	0.03	0.94	0.66	0.04			
Delay/Veh:	21.0	20.9	55.6	33.0	31.8	31.8	30.9	61.5	30.3	52.1	25.2	19.1			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	21.0	20.9	55.6	33.0	31.8	31.8	30.9	61.5	30.3	52.1	25.2	19.1			
LOS by Move:	C	C	E	C	C	C	C	E	C	D	C	B			
HCM2kAvgQ:	0	0	17	2	1	1	1	7	0	15	8	0			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+No+Project (PM)

## Intersection #104: Vineyard Boulevard and Tenant Avenue



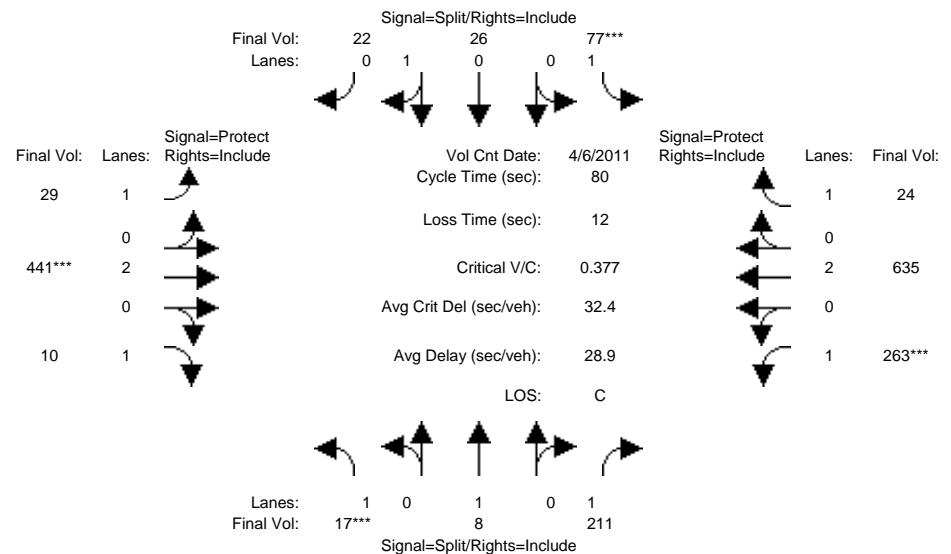
Street Name: Vineyard Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10 10		10 10		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 6 Apr 2011 <<															
Base Vol:	17	8	197	77	25	22	29	436	10	236	626	24			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	17	8	197	77	25	22	29	436	10	236	626	24			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	17	8	197	77	25	22	29	436	10	236	626	24			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	17	8	197	77	25	22	29	436	10	236	626	24			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	17	8	197	77	25	22	29	436	10	236	626	24			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	17	8	197	77	25	22	29	436	10	236	626	24			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92			
Lanes:	1.00	1.00	1.00	0.53	0.47	1.00	2.00	1.00	1.00	2.00	1.00	1.00			
Final Sat.:	1750	1900	1750	1750	957	843	1750	3800	1750	1750	3800	1750			
Capacity Analysis Module:															
Vol/Sat:	0.01	0.00	0.11	0.04	0.03	0.03	0.02	0.11	0.01	0.13	0.16	0.01			
Crit Moves:	****		****		****		****		****		****				
Green Time:	25.2	25.2	25.2	10.0	10.0	10.0	11.4	15.1	15.1	17.7	21.4	21.4			
Volume/Cap:	0.03	0.01	0.36	0.35	0.21	0.21	0.12	0.61	0.03	0.61	0.62	0.05			
Delay/Veh:	18.9	18.8	21.5	33.0	31.9	31.9	30.1	31.3	26.5	30.9	26.8	21.8			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	18.9	18.8	21.5	33.0	31.9	31.9	30.1	31.3	26.5	30.9	26.8	21.8			
LOS by Move:	B	B	C	C	C	C	C	C	C	C	C	C			
HCM2kAvgQ:	0	0	4	2	1	1	1	5	0	5	6	0			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (PM)

## Intersection #104: Vineyard Boulevard and Tennant Avenue



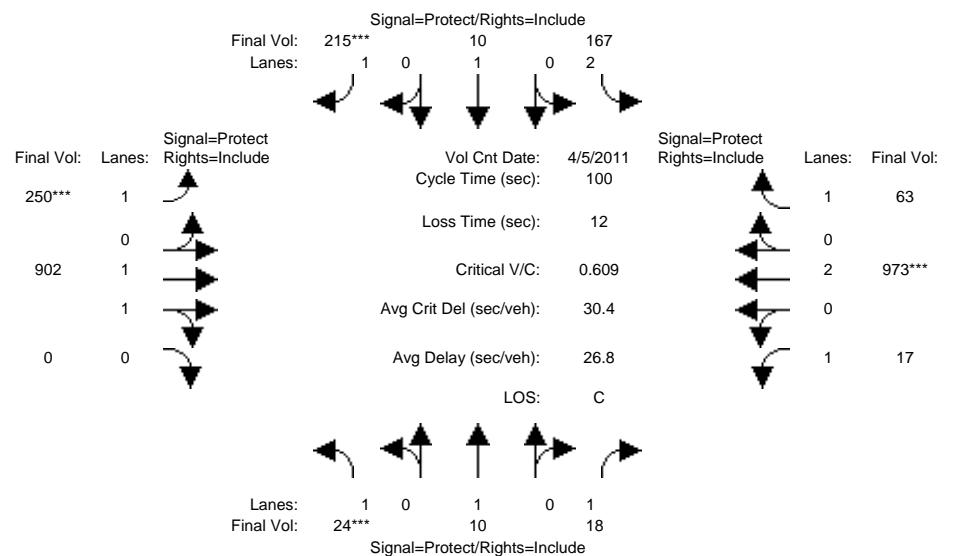
Street Name: Vineyard Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	10 10		10 10		10 10		7 10		10 10		7 10		10 10		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 6 Apr 2011 <<															
Base Vol:	17	8	197	77	25	22	29	436	10	236	626	24			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	17	8	197	77	25	22	29	436	10	236	626	24			
Added Vol:	0	0	14	0	1	0	0	5	0	27	9	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	17	8	211	77	26	22	29	441	10	263	635	24			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	17	8	211	77	26	22	29	441	10	263	635	24			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	17	8	211	77	26	22	29	441	10	263	635	24			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	17	8	211	77	26	22	29	441	10	263	635	24			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92			
Lanes:	1.00	1.00	1.00	0.54	0.46	1.00	2.00	1.00	1.00	2.00	1.00	1.00			
Final Sat.:	1750	1900	1750	1750	975	825	1750	3800	1750	1750	3800	1750			
Capacity Analysis Module:															
Vol/Sat:	0.01	0.00	0.12	0.04	0.03	0.03	0.02	0.12	0.01	0.15	0.17	0.01			
Crit Moves:	****		****		****		****		****						
Green Time:	25.6	25.6	25.6	10.0	10.0	10.0	11.1	14.1	14.1	18.3	21.3	21.3			
Volume/Cap:	0.03	0.01	0.38	0.35	0.21	0.21	0.12	0.66	0.03	0.66	0.63	0.05			
Delay/Veh:	18.7	18.6	21.4	33.0	31.9	31.9	30.4	33.1	27.3	32.0	27.2	21.9			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	18.7	18.6	21.4	33.0	31.9	31.9	30.4	33.1	27.3	32.0	27.2	21.9			
LOS by Move:	B	B	C	C	C	C	C	C	C	C	C	C			
HCM2kAvgQ:	0	0	5	2	1	1	1	5	0	6	7	0			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



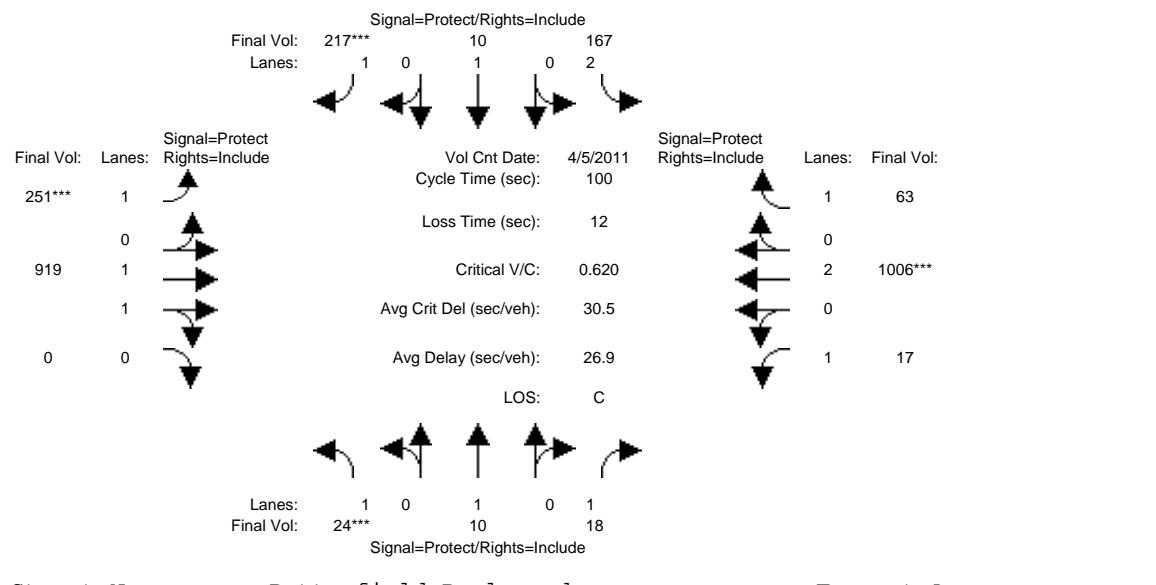
Street Name: Butterfield Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7		10	10		7	10		10	7		10	10		10
Y+R:	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Volume Module: >> Count Date: 5 Apr 2011 <<															
Base Vol:	24	10	18	167	10	215	250	902	0	17	973	63			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	24	10	18	167	10	215	250	902	0	17	973	63			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	24	10	18	167	10	215	250	902	0	17	973	63			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	24	10	18	167	10	215	250	902	0	17	973	63			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	24	10	18	167	10	215	250	902	0	17	973	63			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	24	10	18	167	10	215	250	902	0	17	973	63			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.92	0.92	1.00	0.92			
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00			
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3700	0	1750	3800	1750			
Capacity Analysis Module:															
Vol/Sat:	0.01	0.01	0.01	0.05	0.01	0.12	0.14	0.24	0.00	0.01	0.26	0.04			
Crit Moves:	****			****			****			****					
Green Time:	7.0	15.3	15.3	10.7	19.1	19.1	22.2	48.1	0.0	13.8	39.8	39.8			
Volume/Cap:	0.20	0.03	0.07	0.49	0.03	0.64	0.64	0.51	0.00	0.07	0.64	0.09			
Delay/Veh:	44.6	36.1	36.3	43.2	33.0	41.6	39.0	18.0	0.0	37.6	25.4	18.9			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	44.6	36.1	36.3	43.2	33.0	41.6	39.0	18.0	0.0	37.6	25.4	18.9			
LOS by Move:	D	D	D	D	C	D	D	B	A	D	C	B			
HCM2kAvgQ:	1	0	1	3	0	7	7	9	0	0	12	1			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



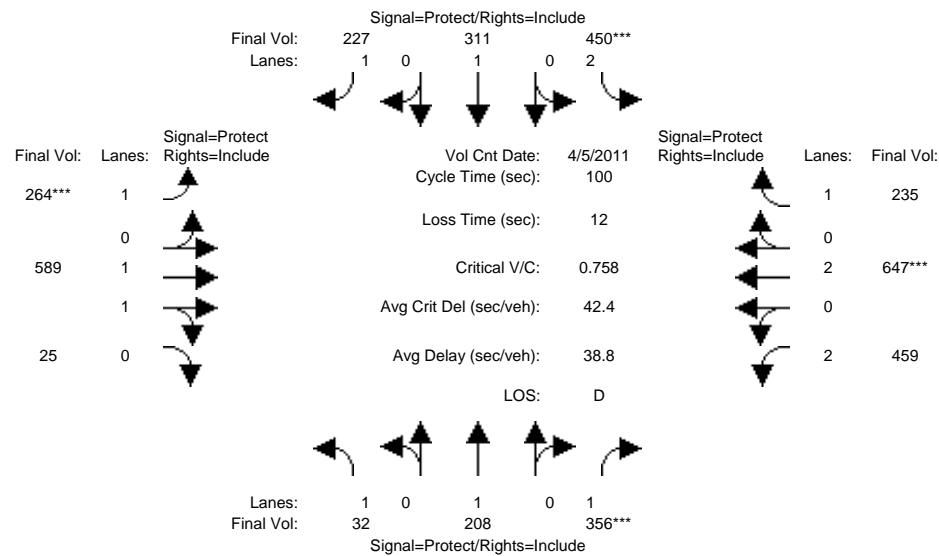
Street Name: Butterfield Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10	7	10	10	7	10	10	10	7	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 5 Apr 2011 <<															
Base Vol:	24	10	18	167	10	215	250	902	0	17	973	63			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	24	10	18	167	10	215	250	902	0	17	973	63			
Added Vol:	0	0	0	0	0	2	1	17	0	0	33	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	24	10	18	167	10	217	251	919	0	17	1006	63			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	24	10	18	167	10	217	251	919	0	17	1006	63			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	24	10	18	167	10	217	251	919	0	17	1006	63			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	24	10	18	167	10	217	251	919	0	17	1006	63			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.92	0.92	1.00	0.92			
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	2.00	0.00	1.00	2.00	1.00			
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3700	0	1750	3800	1750			
Capacity Analysis Module:															
Vol/Sat:	0.01	0.01	0.01	0.05	0.01	0.12	0.14	0.25	0.00	0.01	0.26	0.04			
Crit Moves:	****			****	****					****					
Green Time:	7.0	15.2	15.2	10.7	18.9	18.9	21.8	48.5	0.0	13.7	40.3	40.3			
Volume/Cap:	0.20	0.03	0.07	0.50	0.03	0.66	0.66	0.51	0.00	0.07	0.66	0.09			
Delay/Veh:	44.6	36.2	36.4	43.3	33.1	42.3	39.8	17.9	0.0	37.8	25.3	18.5			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	44.6	36.2	36.4	43.3	33.1	42.3	39.8	17.9	0.0	37.8	25.3	18.5			
LOS by Move:	D	D	D	D	C	D	D	B	A	D	C	B			
HCM2kAvgQ:	1	0	1	3	0	7	7	9	0	0	12	1			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 2015+Cumulative+No+Project (PM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



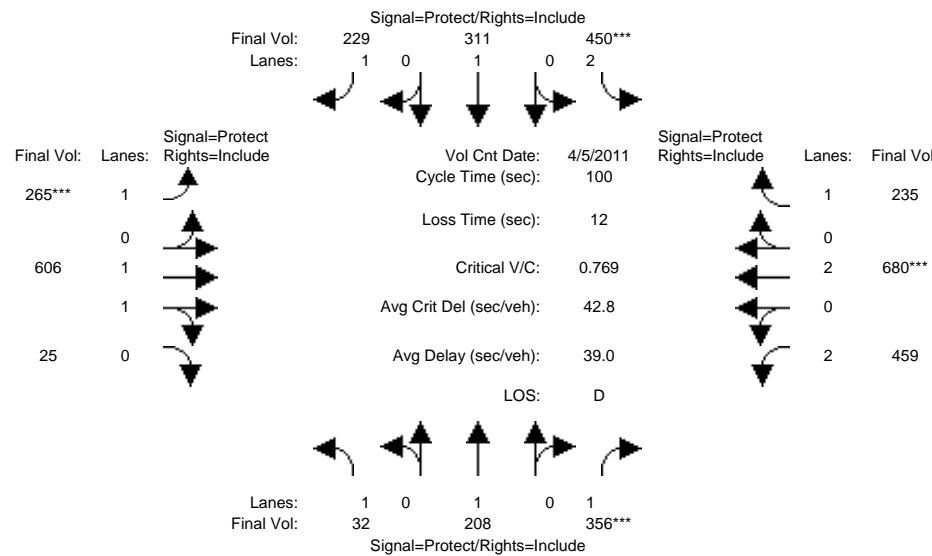
Street Name: Butterfield Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7 10		10 7		10 7		10 7		10 7		10 7		10 7		
Y+R:	4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		4.0 4.0		
Volume Module: >> Count Date: 5 Apr 2011 <<															
Base Vol:	32	208	356	450	311	227	264	589	25	459	647	235			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	32	208	356	450	311	227	264	589	25	459	647	235			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	32	208	356	450	311	227	264	589	25	459	647	235			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	32	208	356	450	311	227	264	589	25	459	647	235			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	32	208	356	450	311	227	264	589	25	459	647	235			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	32	208	356	450	311	227	264	589	25	459	647	235			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.95	0.83	1.00	0.92			
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.92	0.08	2.00	2.00	1.00			
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3549	151	3150	3800	1750			
Capacity Analysis Module:															
Vol/Sat:	0.02	0.11	0.20	0.14	0.16	0.13	0.15	0.17	0.17	0.15	0.17	0.13			
Crit Moves:	****			****			****			****					
Green Time:	13.7	26.8	26.8	18.8	32.0	32.0	19.9	22.5	22.5	19.8	22.4	22.4			
Volume/Cap:	0.13	0.41	0.76	0.76	0.51	0.41	0.76	0.74	0.74	0.74	0.76	0.60			
Delay/Veh:	38.2	30.6	40.6	44.1	28.4	27.1	47.1	39.4	39.4	42.2	40.2	37.3			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	38.2	30.6	40.6	44.1	28.4	27.1	47.1	39.4	39.4	42.2	40.2	37.3			
LOS by Move:	D	C	D	D	C	C	D	D	D	D	D	D			
HCM2kAvgQ:	1	5	13	8	8	6	8	9	9	8	10	7			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (PM)

## Intersection #105: Butterfield Boulevard and Tennant Avenue



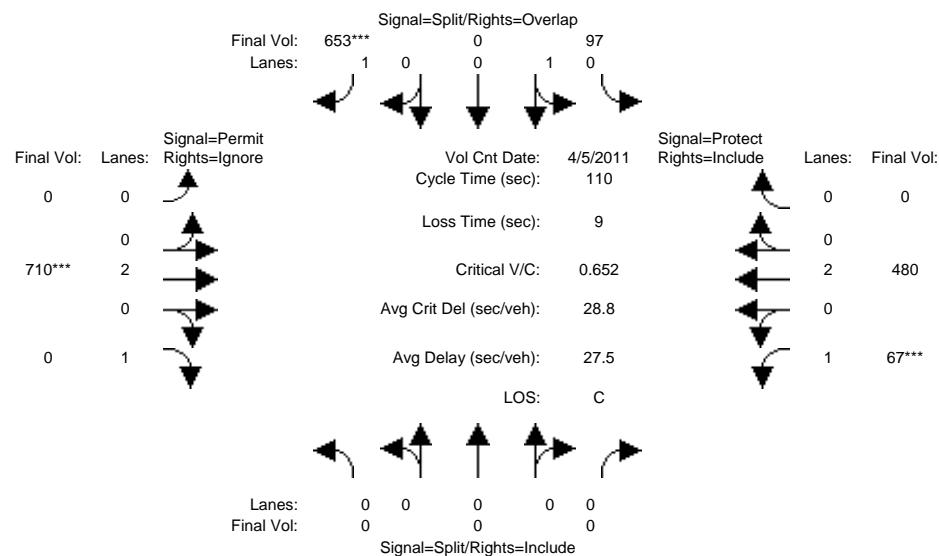
Street Name: Butterfield Boulevard Tenant Avenue															
Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	7	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 5 Apr 2011 <<															
Base Vol:	32	208	356	450	311	227	264	589	25	459	647	235			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Initial Bse:	32	208	356	450	311	227	264	589	25	459	647	235			
Added Vol:	0	0	0	0	0	2	1	17	0	0	33	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	32	208	356	450	311	229	265	606	25	459	680	235			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
PHF Volume:	32	208	356	450	311	229	265	606	25	459	680	235			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	32	208	356	450	311	229	265	606	25	459	680	235			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
FinalVolume:	32	208	356	450	311	229	265	606	25	459	680	235			
Saturation Flow Module:															
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900			
Adjustment:	0.92	1.00	0.92	0.83	1.00	0.92	0.92	0.97	0.95	0.83	1.00	0.92			
Lanes:	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.92	0.08	2.00	2.00	1.00			
Final Sat.:	1750	1900	1750	3150	1900	1750	1750	3553	147	3150	3800	1750			
Capacity Analysis Module:															
Vol/Sat:	0.02	0.11	0.20	0.14	0.16	0.13	0.15	0.17	0.17	0.15	0.18	0.13			
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****			
Green Time:	13.5	26.5	26.5	18.6	31.5	31.5	19.7	23.2	23.2	19.8	23.3	23.3			
Volume/Cap:	0.14	0.41	0.77	0.77	0.52	0.41	0.77	0.74	0.74	0.74	0.77	0.58			
Delay/Veh:	38.4	30.9	41.6	44.8	28.8	27.5	48.1	38.9	38.9	42.2	40.0	36.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
AdjDel/Veh:	38.4	30.9	41.6	44.8	28.8	27.5	48.1	38.9	38.9	42.2	40.0	36.0			
LOS by Move:	D	C	D	D	C	C	D	D	D	D	D	D			
HCM2kAvgQ:	1	5	13	8	8	6	8	9	9	8	10	7			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

## Intersection #106: US 101 Southbound Ramps and Tennant Avenue



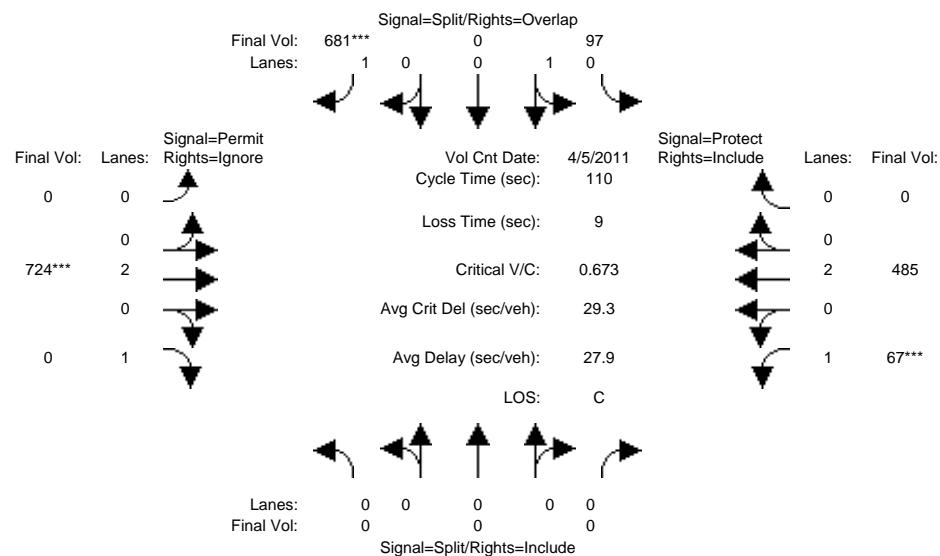
Street Name: US 101 Southbound Ramps												Tennant Avenue													
Approach: North Bound				South Bound				East Bound				West Bound													
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	
Min. Green:	10	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10	67	480	0	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 5 Apr 2011 <<																									
Base Vol:	0	0	0	97	0	653	0	710	409	67	480	0													
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	0	0	97	0	653	0	710	409	67	480	0													
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	97	0	653	0	710	409	67	480	0													
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	0	0	0	97	0	653	0	710	0	67	480	0													
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	97	0	653	0	710	0	67	480	0													
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	0	0	0	97	0	653	0	710	0	67	480	0													
Saturation Flow Module:																									
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	1.00	0.92	1.00	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	2.00
Final Sat.:	0	0	0	1800	0	1750	0	3800	1750	0	1750	0	3800	1750	0	1750	0	3800	0	1750	0	3800	0	1750	0
Capacity Analysis Module:																									
Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.37	0.00	0.19	0.00	0.04	0.13	0.00													
Crit Moves:																									
Green Time:	0.0	0.0	0.0	62.6	0.0	62.6	0.0	31.4	0.0	7.0	38.4	0.0													
Volume/Cap:	0.00	0.00	0.00	0.09	0.00	0.66	0.00	0.66	0.00	0.60	0.36	0.00													
Delay/Veh:	0.0	0.0	0.0	10.8	0.0	17.9	0.0	36.0	0.0	59.0	26.9	0.0													
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0	10.8	0.0	17.9	0.0	36.0	0.0	59.0	26.9	0.0													
LOS by Move:	A	A	A	B	A	B	A	D	A	E	C	A													
HCM2kAvgQ:	0	0	0	2	0	17	0	10	0	2	6	0													

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #106: US 101 Southbound Ramps and Tennant Avenue



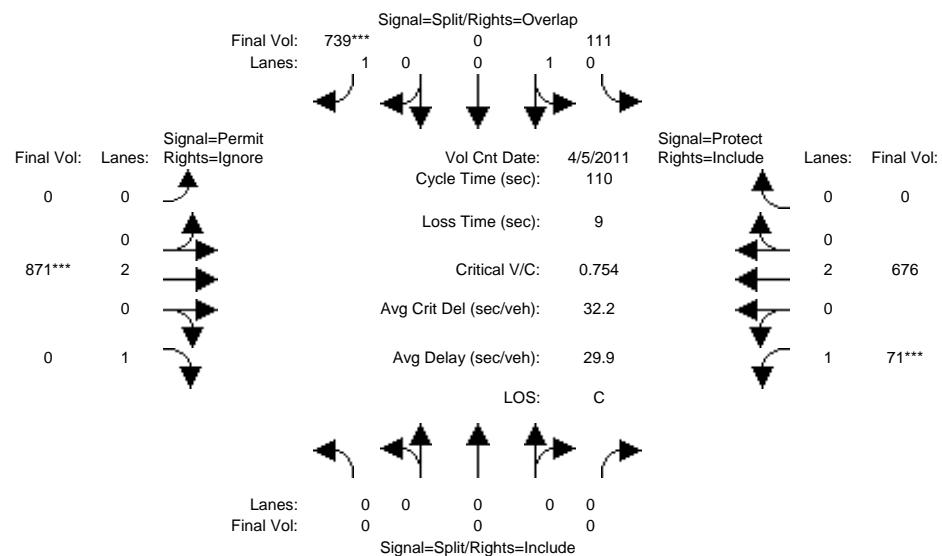
Street Name: US 101 Southbound Ramps												Tennant Avenue												
Approach: North Bound				South Bound				East Bound				West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R									
Min. Green:	10	10	10	10	10	10	7	10	10	7	10	10	7	10	10									
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0									
Volume Module: >> Count Date: 5 Apr 2011 <<																								
Base Vol:	0	0	0	97	0	653	0	710	409	67	480	0												
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	0	0	0	97	0	653	0	710	409	67	480	0												
Added Vol:	0	0	0	0	0	28	0	14	3	0	5	0												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	0	0	0	97	0	681	0	724	412	67	485	0												
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	0	0	0	97	0	681	0	724	0	67	485	0												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	0	0	0	97	0	681	0	724	0	67	485	0												
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	0	0	0	97	0	681	0	724	0	67	485	0												
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	1.00	0.92	1.00	0.92		
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	0.00		
Final Sat.:	0	0	0	1800	0	1750	0	3800	1750	0	3800	1750	0	3800	1750	0	3800	0	0	0	0	0	0	
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.00	0.00	0.05	0.00	0.39	0.00	0.19	0.00	0.04	0.13	0.00												
Crit Moves:													****											
Green Time:	0.0	0.0	0.0	63.1	0.0	63.1	0.0	30.9	0.0	7.0	37.9	0.0												
Volume/Cap:	0.00	0.00	0.00	0.09	0.00	0.68	0.00	0.68	0.00	0.60	0.37	0.00												
Delay/Veh:	0.0	0.0	0.0	10.6	0.0	18.3	0.0	36.9	0.0	59.0	27.3	0.0												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	0.0	0.0	0.0	10.6	0.0	18.3	0.0	36.9	0.0	59.0	27.3	0.0												
LOS by Move:	A	A	A	B	A	B	A	D	A	E	C	A												
HCM2kAvgQ:	0	0	0	2	0	18	0	11	0	2	6	0												

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 2015+Cumulative+No+Project (PM)

## Intersection #106: US 101 Southbound Ramps and Tennant Avenue



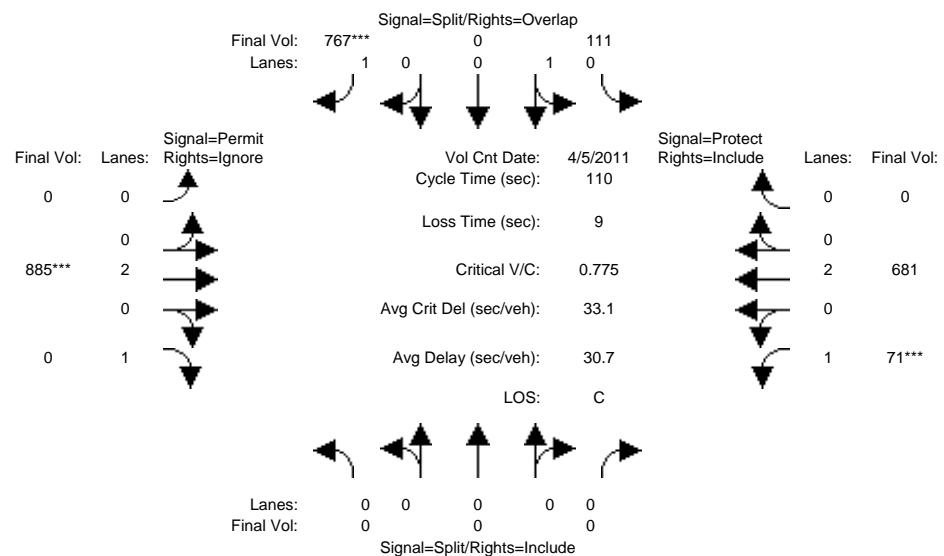
Street Name: US 101 Southbound Ramps			Tennant Avenue									
Approach:	North Bound		South Bound		East Bound		West Bound					
Movement:	L - T - R		L - T - R		L - T - R		L - T - R					
Min. Green:	10	10	10	10	10	7	10	10				
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0				
Volume Module: >> Count Date: 5 Apr 2011 <<												
Base Vol:	0	0	0	111	0	739	0	871	614	71	676	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	111	0	739	0	871	614	71	676	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	111	0	739	0	871	614	71	676	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
PHF Volume:	0	0	0	111	0	739	0	871	0	71	676	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	111	0	739	0	871	0	71	676	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
FinalVolume:	0	0	0	111	0	739	0	871	0	71	676	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00
Final Sat.:	0	0	0	1800	0	1750	0	3800	1750	1750	3800	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.42	0.00	0.23	0.00	0.04	0.18	0.00
Crit Moves:						****		****		****		
Green Time:	0.0	0.0	0.0	60.9	0.0	60.9	0.0	33.1	0.0	7.0	40.1	0.0
Volume/Cap:	0.00	0.00	0.00	0.11	0.00	0.76	0.00	0.76	0.00	0.64	0.49	0.00
Delay/Veh:	0.0	0.0	0.0	11.7	0.0	22.6	0.0	38.0	0.0	61.9	27.3	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	11.7	0.0	22.6	0.0	38.0	0.0	61.9	27.3	0.0
LOS by Move:	A	A	A	B	A	C	A	D	A	E	C	A
HCM2kAvgQ:	0	0	0	2	0	22	0	13	0	3	9	0

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
2015+Cumulative+Project (PM)

## Intersection #106: US 101 Southbound Ramps and Tennant Avenue



Street Name: US 101 Southbound Ramps												Tennant Avenue												
Approach: North Bound				South Bound				East Bound				West Bound												
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-
Min. Green:	10	10	10	10	10	10	7	10	10	10	7	10	7	10	10									
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0									
Volume Module: >> Count Date: 5 Apr 2011 <<																								
Base Vol:	0	0	0	111	0	739	0	871	614	71	676	0												
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
Initial Bse:	0	0	0	111	0	739	0	871	614	71	676	0												
Added Vol:	0	0	0	0	0	28	0	14	3	0	5	0												
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0												
Initial Fut:	0	0	0	111	0	767	0	885	617	71	681	0												
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
PHF Volume:	0	0	0	111	0	767	0	885	0	71	681	0												
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
Reduced Vol:	0	0	0	111	0	767	0	885	0	71	681	0												
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
FinalVolume:	0	0	0	111	0	767	0	885	0	71	681	0												
Saturation Flow Module:																								
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900									
Adjustment:	0.92	1.00	0.92	0.95	0.95	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92									
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	0.00									
Final Sat.:	0	0	0	1800	0	1750	0	3800	1750	1750	3800	1750	1750	3800	0									
Capacity Analysis Module:																								
Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.44	0.00	0.23	0.00	0.04	0.18	0.00												
Crit Moves:						****		****			****													
Green Time:	0.0	0.0	0.0	61.4	0.0	61.4	0.0	32.6	0.0	7.0	39.6	0.0												
Volume/Cap:	0.00	0.00	0.00	0.11	0.00	0.79	0.00	0.79	0.00	0.64	0.50	0.00												
Delay/Veh:	0.0	0.0	0.0	11.5	0.0	23.4	0.0	39.2	0.0	61.9	27.7	0.0												
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00									
AdjDel/Veh:	0.0	0.0	0.0	11.5	0.0	23.4	0.0	39.2	0.0	61.9	27.7	0.0												
LOS by Move:	A	A	A	B	A	C	A	D	A	E	C	A												
HCM2kAvgQ:	0	0	0	2	0	23	0	14	0	3	9	0												

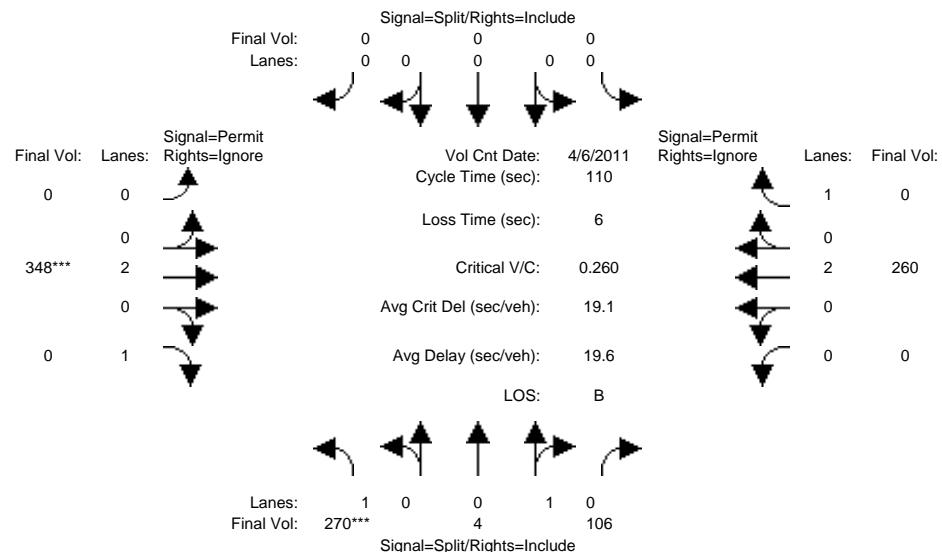
Note: Queue reported is the number of cars per lane.

Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing (PM)

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Intersection #107: US 101 Northbound Ramps and Tennant Avenue

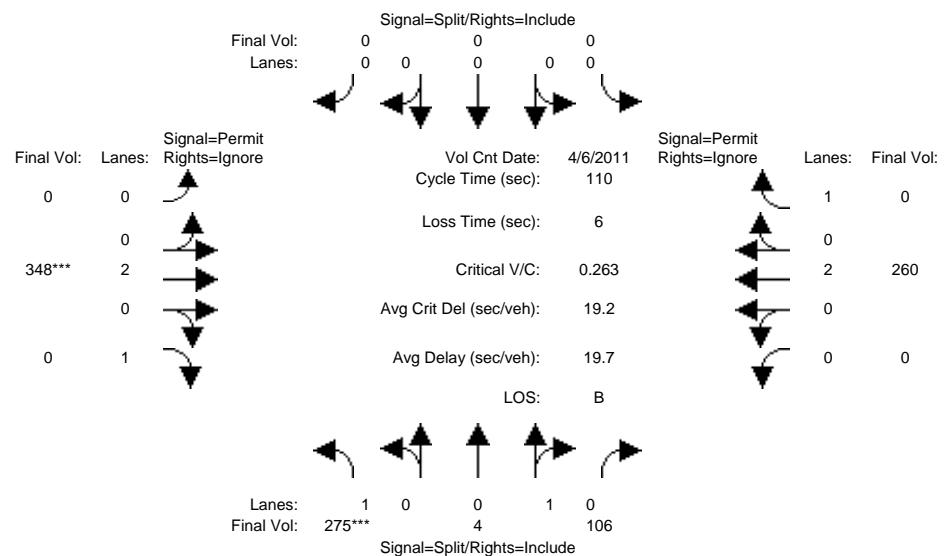


Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Operations (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #107: US 101 Northbound Ramps and Tennant Avenue



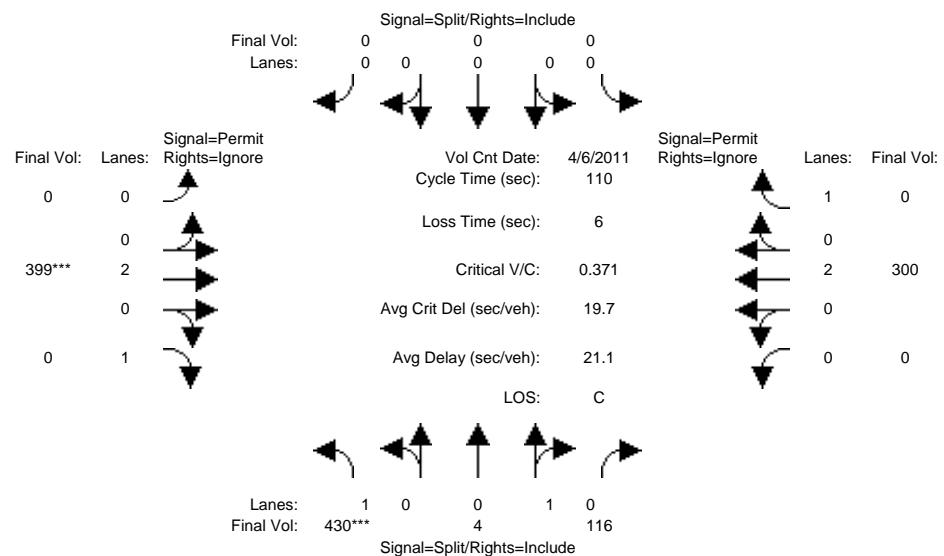
Street Name: US 101 Northbound Ramps												Tennant Avenue											
Approach: North Bound				South Bound				East Bound				West Bound											
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R								
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10								
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0								
Volume Module: >> Count Date: 6 Apr 2011 <<																							
Base Vol:	270	4	106	0	0	0	0	348	386	0	260	54											
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
Initial Bse:	270	4	106	0	0	0	0	348	386	0	260	54											
Added Vol:	5	0	0	0	0	0	0	0	0	14	0	0	0	0	0								
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Initial Fut:	275	4	106	0	0	0	0	348	400	0	260	54											
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00								
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00								
PHF Volume:	275	4	106	0	0	0	0	348	0	0	260	0											
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	275	4	106	0	0	0	0	348	0	0	260	0											
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00								
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00								
FinalVolume:	275	4	106	0	0	0	0	348	0	0	260	0											
Saturation Flow Module:																							
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900								
Adjustment:	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92								
Lanes:	1.00	0.04	0.96	0.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00	0.00	2.00	1.00							
Final Sat.:	1750	65	1735	0	0	0	0	0	3800	1750	0	3800	1750	0	3800	1750							
Capacity Analysis Module:																							
Vol/Sat:	0.16	0.06	0.06	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.07	0.00										
Crit Moves:	****								****														
Green Time:	65.7	65.7	65.7	0.0	0.0	0.0	0.0	0.0	38.3	0.0	0.0	38.3	0.0										
Volume/Cap:	0.26	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00	0.20	0.00										
Delay/Veh:	10.7	9.5	9.5	0.0	0.0	0.0	0.0	0.0	25.8	0.0	0.0	25.2	0.0										
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00								
AdjDel/Veh:	10.7	9.5	9.5	0.0	0.0	0.0	0.0	0.0	25.8	0.0	0.0	25.2	0.0										
LOS by Move:	B	A	A	A	A	A	A	A	C	A	A	C	A	A	C								
HCM2kAvgQ:	5	2	2	0	0	0	0	0	4	0	0	3	0										

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 2015+Cumulative+No+Project (PM)

## Intersection #107: US 101 Northbound Ramps and Tennant Avenue



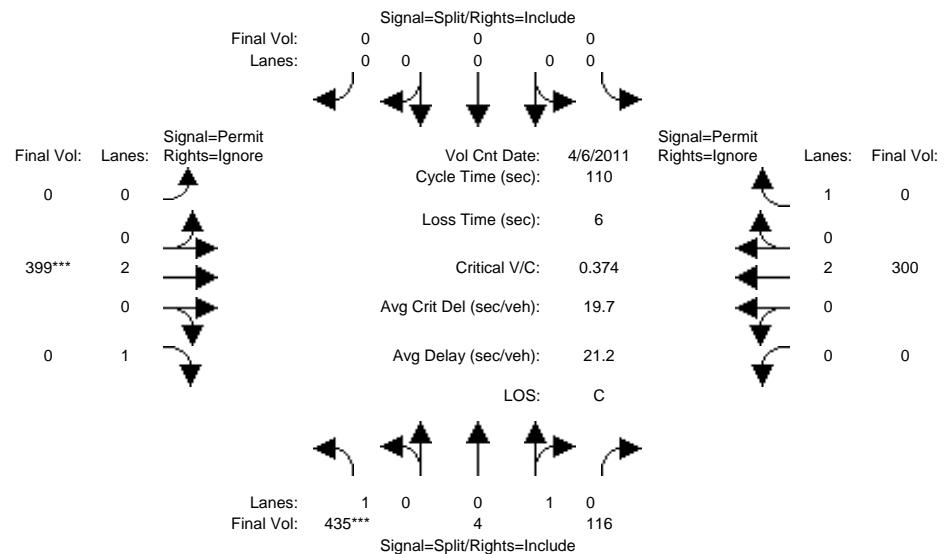
Street Name: US 101 Northbound Ramps												Tennant Avenue				
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 6 Apr 2011 <<																
Base Vol:	430	4	116	0	0	0	0	0	399	386	0	300	63			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	430	4	116	0	0	0	0	0	399	386	0	300	63			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	430	4	116	0	0	0	0	0	399	386	0	300	63			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	
PHF Volume:	430	4	116	0	0	0	0	0	399	0	0	300	0			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	430	4	116	0	0	0	0	0	399	0	0	300	0			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	
FinalVolume:	430	4	116	0	0	0	0	0	399	0	0	300	0			
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	0.03	0.97	0.00	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00			
Final Sat.:	1750	60	1740	0	0	0	0	0	3800	1750	0	3800	1750			
Capacity Analysis Module:																
Vol/Sat:	0.25	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.08	0.00			
Crit Moves:	****								****							
Green Time:	72.9	72.9	72.9	0.0	0.0	0.0	0.0	0.0	31.1	0.0	0.0	31.1	0.0			
Volume/Cap:	0.37	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.28	0.00			
Delay/Veh:	8.5	6.8	6.8	0.0	0.0	0.0	0.0	0.0	31.8	0.0	0.0	30.8	0.0			
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	8.5	6.8	6.8	0.0	0.0	0.0	0.0	0.0	31.8	0.0	0.0	30.8	0.0			
LOS by Move:	A	A	A	A	A	A	A	A	C	A	A	C	A			
HCM2kAvgQ:	7	2	2	0	0	0	0	0	5	0	0	4	0			

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

 Level Of Service Computation Report  
 2000 HCM Operations (Future Volume Alternative)  
 2015+Cumulative+Project (PM)

## Intersection #107: US 101 Northbound Ramps and Tennant Avenue

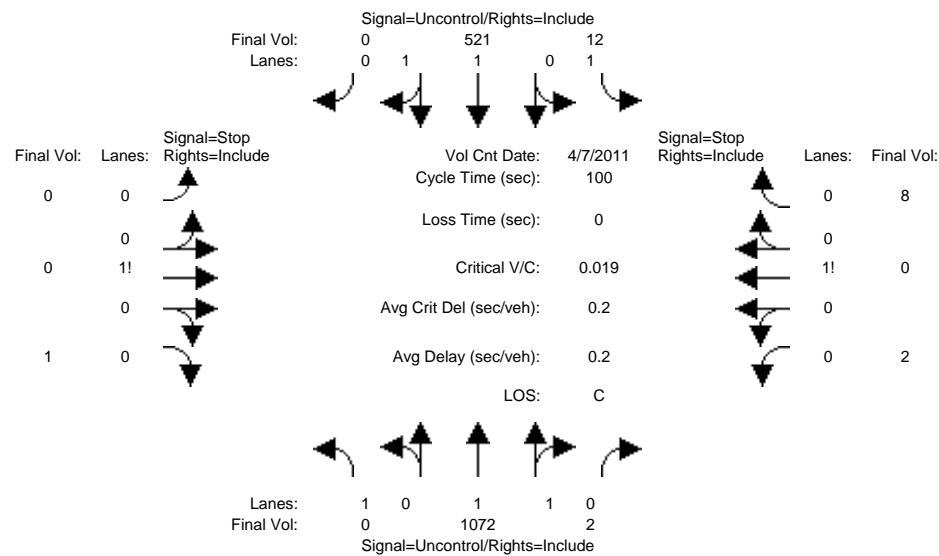


Street Name: US 101 Northbound Ramps												Tennant Avenue				
Approach:	North Bound			South Bound			East Bound			West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	
Min. Green:	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module: >> Count Date: 6 Apr 2011 <<																
Base Vol:	430	4	116	0	0	0	0	399	386	0	300	63				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	430	4	116	0	0	0	0	399	386	0	300	63				
Added Vol:	5	0	0	0	0	0	0	0	14	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	435	4	116	0	0	0	0	399	400	0	300	63				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
PHF Volume:	435	4	116	0	0	0	0	399	0	0	300	0				
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	435	4	116	0	0	0	0	399	0	0	300	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00			
FinalVolume:	435	4	116	0	0	0	0	399	0	0	300	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	0.95	0.95	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92				
Lanes:	1.00	0.03	0.97	0.00	0.00	0.00	0.00	2.00	1.00	0.00	2.00	1.00				
Final Sat.:	1750	60	1740	0	0	0	0	3800	1750	0	3800	1750				
Capacity Analysis Module:																
Vol/Sat:	0.25	0.07	0.07	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.08	0.00				
Crit Moves:	****															
Green Time:	73.1	73.1	73.1	0.0	0.0	0.0	0.0	30.9	0.0	0.0	30.9	0.0				
Volume/Cap:	0.37	0.10	0.10	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.28	0.00				
Delay/Veh:	8.4	6.7	6.7	0.0	0.0	0.0	0.0	32.0	0.0	0.0	31.0	0.0				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	8.4	6.7	6.7	0.0	0.0	0.0	0.0	32.0	0.0	0.0	31.0	0.0				
LOS by Move:	A	A	A	A	A	A	A	C	A	A	C	A				
HCM2kAvgQ:	7	2	2	0	0	0	0	5	0	0	4	0				

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report  
2000 HCM Unsigned (Future Volume Alternative)  
Existing (AM)

Intersection #213: Monterey Road and Project Driveway



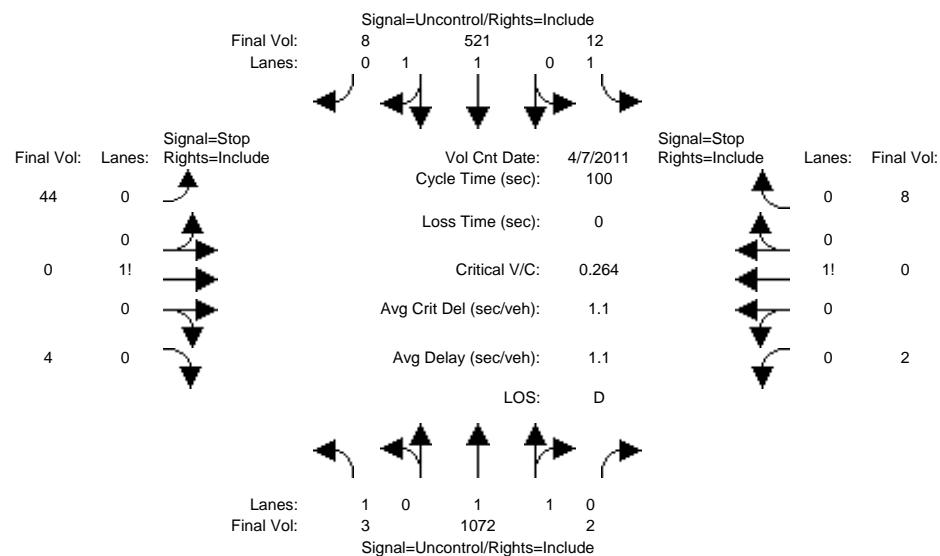
Street Name: Monterey Road Project Driveway  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Volume Module: >> Count Date: 7 Apr 2011 <<  
 Base Vol: 0 1072 2 12 521 0 0 0 1 2 0 8  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 1072 2 12 521 0 0 0 1 2 0 8  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 1072 2 12 521 0 0 0 1 2 0 8  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 0 1072 2 12 521 0 0 0 1 2 0 8  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 0 1072 2 12 521 0 0 0 1 2 0 8  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Critical Gap Module:  
 Critical Gp:xxxxx xxxx xxxx 4.1 xxxx xxxx xxxx xxxx 6.9 7.5 6.5 6.9  
 FollowUpTim:xxxxx xxxx xxxx 2.2 xxxx xxxx xxxx xxxx 3.3 3.5 4.0 3.3  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: xxxx xxxx xxxx 1074 xxxx xxxx xxxx xxxx 261 1358 1618 537  
 Potent Cap.: xxxx xxxx xxxx 657 xxxx xxxx xxxx xxxx 744 110 104 494  
 Move Cap.: xxxx xxxx xxxx 657 xxxx xxxx xxxx xxxx 744 108 103 494  
 Volume/Cap: xxxx xxxx xxxx 0.02 xxxx xxxx xxxx xxxx 0.00 0.02 0.00 0.02  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: xxxx xxxx xxxx 0.1 xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx  
 Control Del:xxxxx xxxx xxxx 10.6 xxxx xxxx xxxx xxxx 9.8 xxxx xxxx xxxx  
 LOS by Move: \* \* \* \* B \* \* \* \* A \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 288 xxxx  
 SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx  
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 18.0 xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* C \*  
 ApproachDel: xxxxxxxx xxxxxxxx 9.8 18.0  
 ApproachLOS: \* \* \* \* \* \* \* \* \* \* \* \* C  
 Note: Queues measured in the number of cars per lane

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing+Project (AM)

## Intersection #213: Monterey Road and Project Driveway



Street Name:		Monterey Road				Project Driveway						
Approach:		North Bound	South Bound	East Bound	West Bound							
Movement:		L - T - R	L - T - R	L - T - R	L - T - R							
Volume Module:	>> Count Date:	7 Apr 2011 <<										
Base Vol:	0	1072	2	12	521	0	0	0	0	2	0	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1072	2	12	521	0	0	0	0	2	0	8
Added Vol:	3	0	0	0	0	8	44	0	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	1072	2	12	521	8	44	0	4	2	0	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	1072	2	12	521	8	44	0	4	2	0	8
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	3	1072	2	12	521	8	44	0	4	2	0	8
Critical Gap Module:												
Critical Gp:	4.1	xxxxx	xxxxx	4.1	xxxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxxx	xxxxx	2.2	xxxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflct Vol:	529	xxxxx	xxxxx	1074	xxxxx	xxxxx	1091	1629	265	1364	1632	537
Potent Cap.:	1048	xxxxx	xxxxx	657	xxxxx	xxxxx	172	103	740	108	102	494
Move Cap.:	1048	xxxxx	xxxxx	657	xxxxx	xxxxx	166	101	740	106	100	494
Volume/Cap:	0.00	xxxxx	xxxxx	0.02	xxxxx	xxxxx	0.26	0.00	0.01	0.02	0.00	0.02
Level Of Service Module:												
2Way95thQ:	0.0	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Control Del:	8.4	xxxxx	xxxxx	10.6	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
LOS by Move:	A	*	*	B	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT								
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	178	xxxxx	xxxxx	285	xxxxx	xxxxx
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	1.0	xxxxx	xxxxx	0.1	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	32.6	xxxxx	xxxxx	18.1	xxxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	C	*
ApproachDel:	xxxxxx		xxxxxx				32.6			18.1		
ApproachLOS:	*		*				D			C		

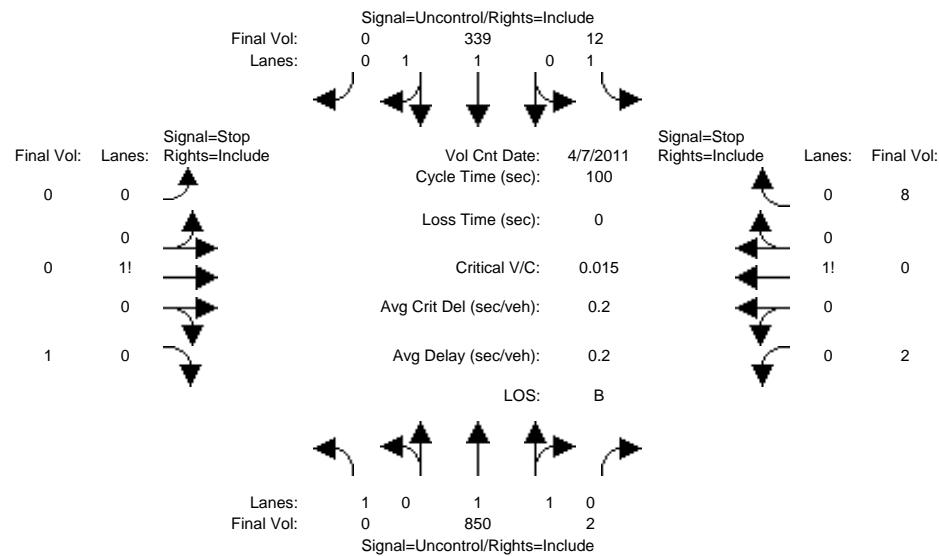
Note: Queue reported is the number of cars per lane.

Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
2015+Cumulative+No+Project (AM)

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Intersection #213: Monterey Road and Project Driveway



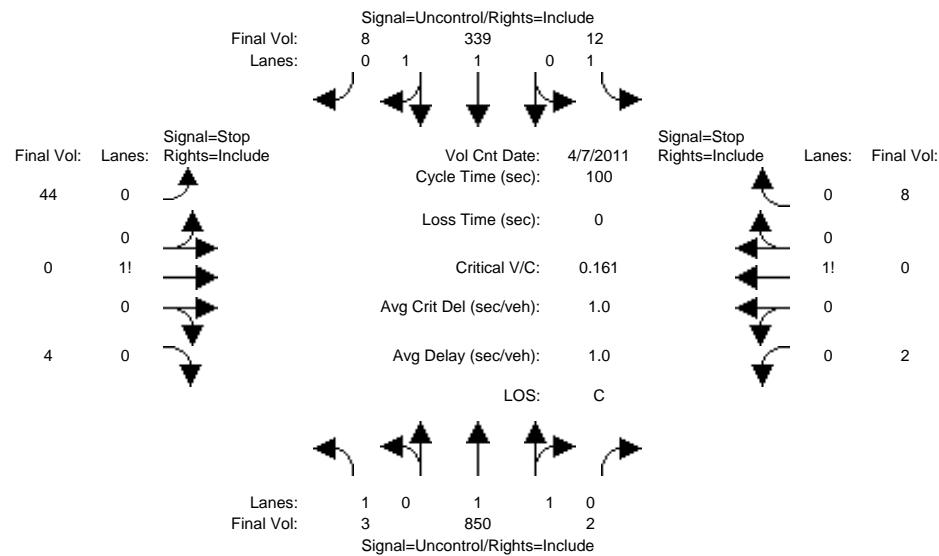
Street Name: Monterey Road Project Driveway  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Volume Module: >> Count Date: 7 Apr 2011 <<  
 Base Vol: 0 850 2 12 339 0 0 0 1 2 0 8  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 850 2 12 339 0 0 0 1 2 0 8  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 850 2 12 339 0 0 0 1 2 0 8  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 0 850 2 12 339 0 0 0 1 2 0 8  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 0 850 2 12 339 0 0 0 1 2 0 8  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Critical Gap Module:  
 Critical Gp:xxxxx xxxx xxxx 4.1 xxxx xxxx xxxx xxxx 6.9 7.5 6.5 6.9  
 FollowUpTim:xxxxx xxxx xxxx 2.2 xxxx xxxx xxxx xxxx 3.3 3.5 4.0 3.3  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: xxxx xxxx xxxx 852 xxxx xxxx xxxx xxxx 170 1045 1214 426  
 Potent Cap.: xxxx xxxx xxxx 795 xxxx xxxx xxxx xxxx 851 186 183 582  
 Move Cap.: xxxx xxxx xxxx 795 xxxx xxxx xxxx xxxx 851 184 180 582  
 Volume/Cap: xxxx xxxx xxxx 0.02 xxxx xxxx xxxx xxxx 0.00 0.01 0.00 0.01  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: xxxx xxxx xxxx 0.0 xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx  
 Control Del:xxxxx xxxx xxxx 9.6 xxxx xxxx xxxx xxxx 9.2 xxxx xxxx xxxx  
 LOS by Move: \* \* \* A \* \* \* \* \* A \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 406 xxxx  
 SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.1 xxxx  
 Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx 14.1 xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* B  
 ApproachDel: xxxxxxxx xxxxxxxx 9.2 14.1  
 ApproachLOS: \* \* A B

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
2015+Cumulative+Project (AM)

## Intersection #213: Monterey Road and Project Driveway



Street Name: Monterey Road Project Driveway

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

---

Volume Module: >> Count Date: 7 Apr 2011 <<

Base Vol:	0	850	2	12	339	0	0	0	0	2	0	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	850	2	12	339	0	0	0	0	2	0	8
Added Vol:	3	0	0	0	0	8	44	0	4	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	850	2	12	339	8	44	0	4	2	0	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	850	2	12	339	8	44	0	4	2	0	8
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	850	2	12	339	8	44	0	4	2	0	8

---

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx	4.1 xxxx xxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2 xxxx xxxx	2.2 xxxx xxxx	3.5	4.0	3.3	3.5	4.0	3.3

---

Capacity Module:

Cnflict Vol:	347 xxxx xxxx	852 xxxx xxxx	798	1225	174	1051	1228	426
Potent Cap.:	1223 xxxx xxxx	795 xxxx xxxx	280	180	846	184	180	582
Move Cap.:	1223 xxxx xxxx	795 xxxx xxxx	273	177	846	181	177	582
Volume/Cap:	0.00 xxxx xxxx	0.02 xxxx xxxx	0.16	0.00	0.00	0.01	0.00	0.01

---

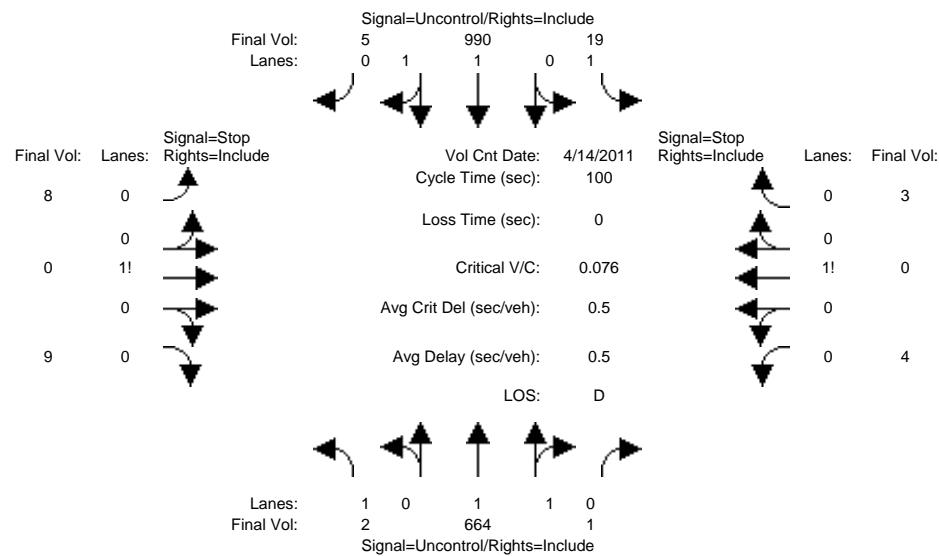
Level Of Service Module:

2Way95thQ:	0.0 xxxx xxxx	0.0 xxxx xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Control Del:	8.0 xxxx xxxx	9.6 xxxx xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
LOS by Move:	A *	*	A *	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT				
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx	289	xxxxxx	xxxx	403	xxxxxx
SharedQueue:	xxxxxx xxxx xxxx	xxxxxx xxxx xxxx	xxxxxx	0.6	xxxxxx	xxxxxx	0.1	xxxxxx
Shrd ConDel:	xxxxxx xxxx xxxx	xxxxxx xxxx xxxx	xxxxxx	19.9	xxxxxx	xxxxxx	14.2	xxxxxx
Shared LOS:	*	*	*	*	*	C	*	*
ApproachDel:	xxxxxx	xxxxxx		19.9			14.2	
ApproachLOS:	*	*			C		B	*

Note: Queue reported is the number of cars per lane.

**Level Of Service Computation Report  
2000 HCM Unsignedized (Future Volume Alternative)  
Existing (PM)**

## Intersection #213: Monterey Road and Project Driveway



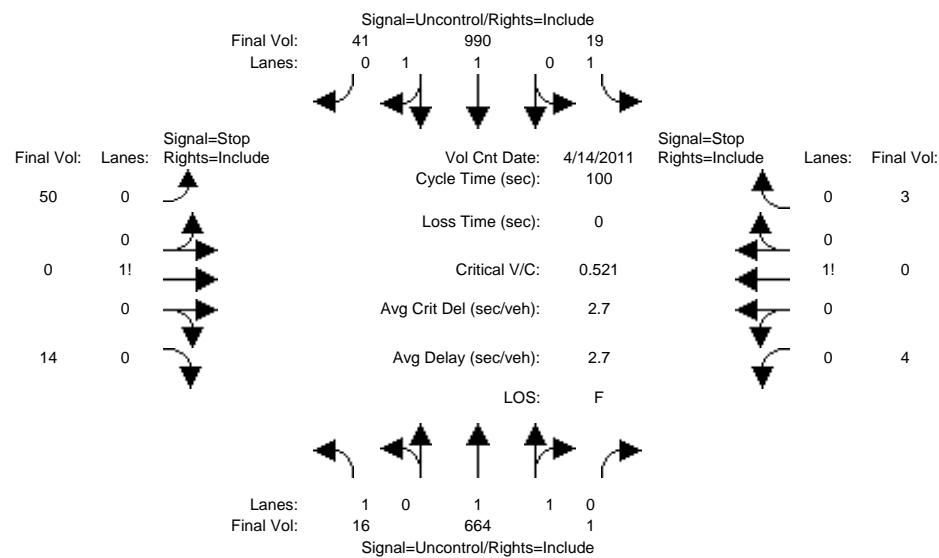
Street Name: Monterey Road Project Driveway  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Volume Module: >> Count Date: 14 Apr 2011 <<  
 Base Vol: 2 664 1 19 990 5 8 0 9 4 0 3  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 2 664 1 19 990 5 8 0 9 4 0 3  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 2 664 1 19 990 5 8 0 9 4 0 3  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 2 664 1 19 990 5 8 0 9 4 0 3  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 2 664 1 19 990 5 8 0 9 4 0 3  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Critical Gap Module:  
 Critical Gp: 4.1 xxxx xxxx 4.1 xxxx xxxx 7.5 6.5 6.9 7.5 6.5 6.9  
 FollowUpTim: 2.2 xxxx xxxx 2.2 xxxx xxxx 3.5 4.0 3.3 3.5 4.0 3.3  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: 995 xxxx xxxx 665 xxxx xxxx 1367 1700 498 1202 1702 333  
 Potent Cap.: 703 xxxx xxxx 934 xxxx xxxx 108 93 524 143 93 669  
 Move Cap.: 703 xxxx xxxx 934 xxxx xxxx 105 91 524 138 91 669  
 Volume/Cap: 0.00 xxxx xxxx 0.02 xxxx xxxx 0.08 0.00 0.02 0.03 0.00 0.00  
 -----|-----|-----|-----|-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: 0.0 xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
 Control Del: 10.1 xxxx xxxx 8.9 xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx  
 LOS by Move: B \* \* A \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx xxxx xxxx xxxx xxxx xxxx 183 xxxx xxxx 209 xxxx  
 SharedQueue:xxxxxx xxxx xxxx xxxx xxxx xxxx xxxx 0.3 xxxx xxxx 0.1 xxxx  
 Shrd ConDel:xxxxxx xxxx xxxx xxxx xxxx xxxx xxxx 26.7 xxxx xxxx 22.8 xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* D \* \* \* C \*  
 ApproachDel: xxxxxxxx xxxxxxxx 26.7 22.8  
 ApproachLOS: \* \* D C

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
Existing+Project (PM)

## Intersection #213: Monterey Road and Project Driveway



Street Name: Monterey Road Project Driveway

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

---

Volume Module: >> Count Date: 14 Apr 2011 <<

Base Vol:	0	664	1	19	990	0	0	0	0	4	0	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	664	1	19	990	0	0	0	0	4	0	3
Added Vol:	16	0	0	0	0	41	50	0	14	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	664	1	19	990	41	50	0	14	4	0	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	664	1	19	990	41	50	0	14	4	0	3
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	664	1	19	990	41	50	0	14	4	0	3

---

Critical Gap Module:

Critical Gp:	4.1	xxxxx	xxxxx	4.1	xxxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2	xxxxx	xxxxx	2.2	xxxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3

---

Capacity Module:

Cnflict Vol:	1031	xxxxx	xxxxx	665	xxxxx	xxxxx	1413	1746	516	1230	1766	333
Potent Cap.:	682	xxxxx	xxxxx	934	xxxxx	xxxxx	100	87	510	136	85	669
Move Cap.:	682	xxxxx	xxxxx	934	xxxxx	xxxxx	96	83	510	128	81	669
Volume/Cap:	0.02	xxxxx	xxxxx	0.02	xxxxx	xxxxx	0.52	0.00	0.03	0.03	0.00	0.00

---

Level Of Service Module:

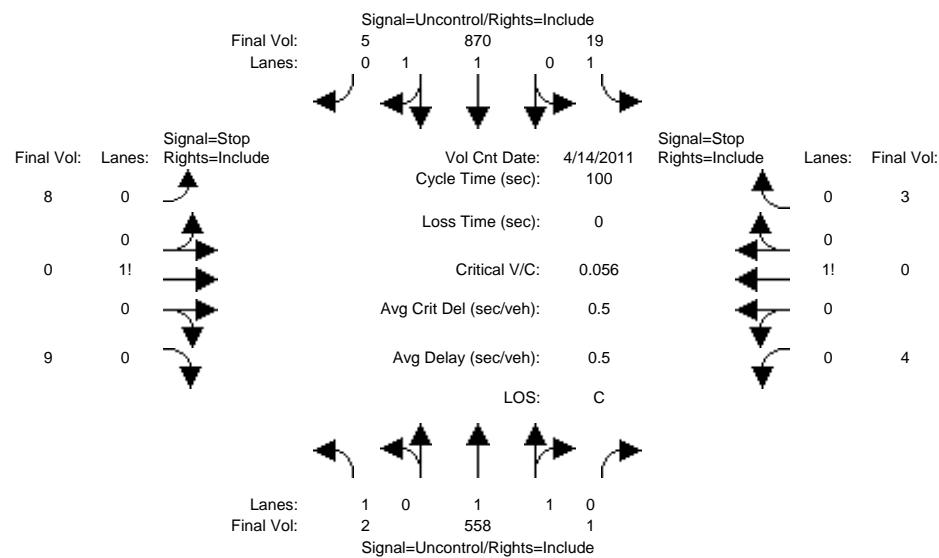
2Way95thQ:	0.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxxx
Control Del:	10.4	xxxxx	xxxxx	8.9	xxxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxxx
LOS by Move:	B	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	117	xxxxx	xxxx	196	xxxxx	
SharedQueue:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	2.6	xxxxx	xxxxx	0.1	xxxxx	
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	68.2	xxxxx	xxxxx	24.1	xxxxx	
Shared LOS:	*	*	*	*	*	*	*	F	*	*	C	*
ApproachDel:	xxxxxx		xxxxxx				68.2			24.1		
ApproachLOS:	*		*				F			C		

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
2015+Cumulative+No+Project (PM)

## Intersection #213: Monterey Road and Project Driveway



Street Name: Monterey Road Project Driveway

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

---

Volume Module: >> Count Date: 14 Apr 2011 <<

Base Vol:	2	558	1	19	870	5	8	0	9	4	0	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	558	1	19	870	5	8	0	9	4	0	3
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	558	1	19	870	5	8	0	9	4	0	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	2	558	1	19	870	5	8	0	9	4	0	3
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	2	558	1	19	870	5	8	0	9	4	0	3

---

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx	4.1 xxxx xxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2 xxxx xxxx	2.2 xxxx xxxx	3.5	4.0	3.3	3.5	4.0	3.3

---

Capacity Module:

Cnflct Vol:	875 xxxx xxxx	559 xxxx xxxx	1194	1474	438	1036	1476	280
Potent Cap.:	780 xxxx xxxx	1022 xxxx xxxx	145	128	573	189	128	724
Move Cap.:	780 xxxx xxxx	1022 xxxx xxxx	142	125	573	183	125	724
Volume/Cap:	0.00 xxxx xxxx	0.02 xxxx xxxx	0.06	0.00	0.02	0.02	0.00	0.00

---

Level Of Service Module:

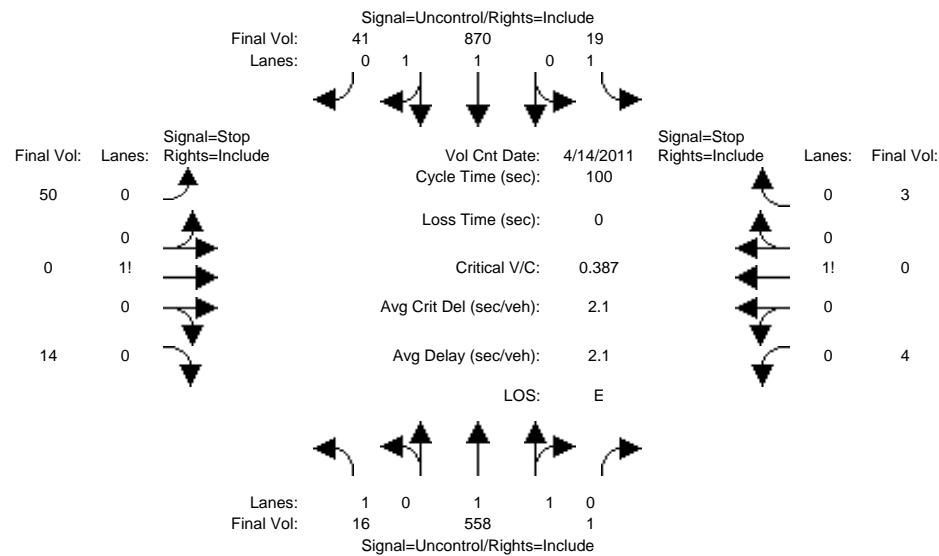
2Way95thQ:	0.0 xxxx xxxx	0.1 xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx
Control Del:	9.6 xxxx xxxx	8.6 xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx	xxxx xxxx
LOS by Move:	A *	*	A *	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT				
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx	236 xxxx	xxxx	269 xxxx		
SharedQueue:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx	0.2 xxxx	xxxx	0.1 xxxx		
Shrd ConDel:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx	21.5 xxxx	xxxx	18.7 xxxx		
Shared LOS:	*	*	*	*	*	C	*	*
ApproachDel:	xxxxxx	xxxxxx		21.5		18.7		
ApproachLOS:	*	*		C		C		

Note: Queue reported is the number of cars per lane.

## Diamond Creek Villas

Level Of Service Computation Report  
2000 HCM Unsignalized (Future Volume Alternative)  
2015+Cumulative+Project (PM)

## Intersection #213: Monterey Road and Project Driveway



Street Name: Monterey Road Project Driveway

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

---

Volume Module: >> Count Date: 14 Apr 2011 <<

Base Vol:	0	558	1	19	870	0	0	0	0	4	0	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	558	1	19	870	0	0	0	0	4	0	3
Added Vol:	16	0	0	0	0	41	50	0	14	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	558	1	19	870	41	50	0	14	4	0	3
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	558	1	19	870	41	50	0	14	4	0	3
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	558	1	19	870	41	50	0	14	4	0	3

---

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx	4.1 xxxx xxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	2.2 xxxx xxxx	2.2 xxxx xxxx	3.5	4.0	3.3	3.5	4.0	3.3

---

Capacity Module:

Cnflict Vol:	911 xxxx xxxx	559 xxxx xxxx	1240	1520	456	1064	1540	280
Potent Cap.:	756 xxxx xxxx	1022 xxxx xxxx	134	120	557	180	117	724
Move Cap.:	756 xxxx xxxx	1022 xxxx xxxx	129	115	557	170	112	724
Volume/Cap:	0.02 xxxx xxxx	0.02 xxxx xxxx	0.39	0.00	0.03	0.02	0.00	0.00

---

Level Of Service Module:

2Way95thQ:	0.1 xxxx xxxx	0.1 xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx
Control Del:	9.9 xxxx xxxx	8.6 xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx
LOS by Move:	A *	*	A *	*	*	*	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT				
Shared Cap.:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	155 xxxx xxxx	xxxx xxxx xxxx	253 xxxx xxxx		
SharedQueue:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	1.8 xxxx xxxx	xxxx xxxx xxxx	0.1 xxxx xxxx		
Shrd ConDel:	xxxx xxxx xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx	43.5 xxxx xxxx	xxxx xxxx xxxx	19.6 xxxx xxxx		
Shared LOS:	*	*	*	*	*	E	*	*
ApproachDel:	xxxxxx	xxxxxx		43.5		19.6		
ApproachLOS:	*		*		E		C	*

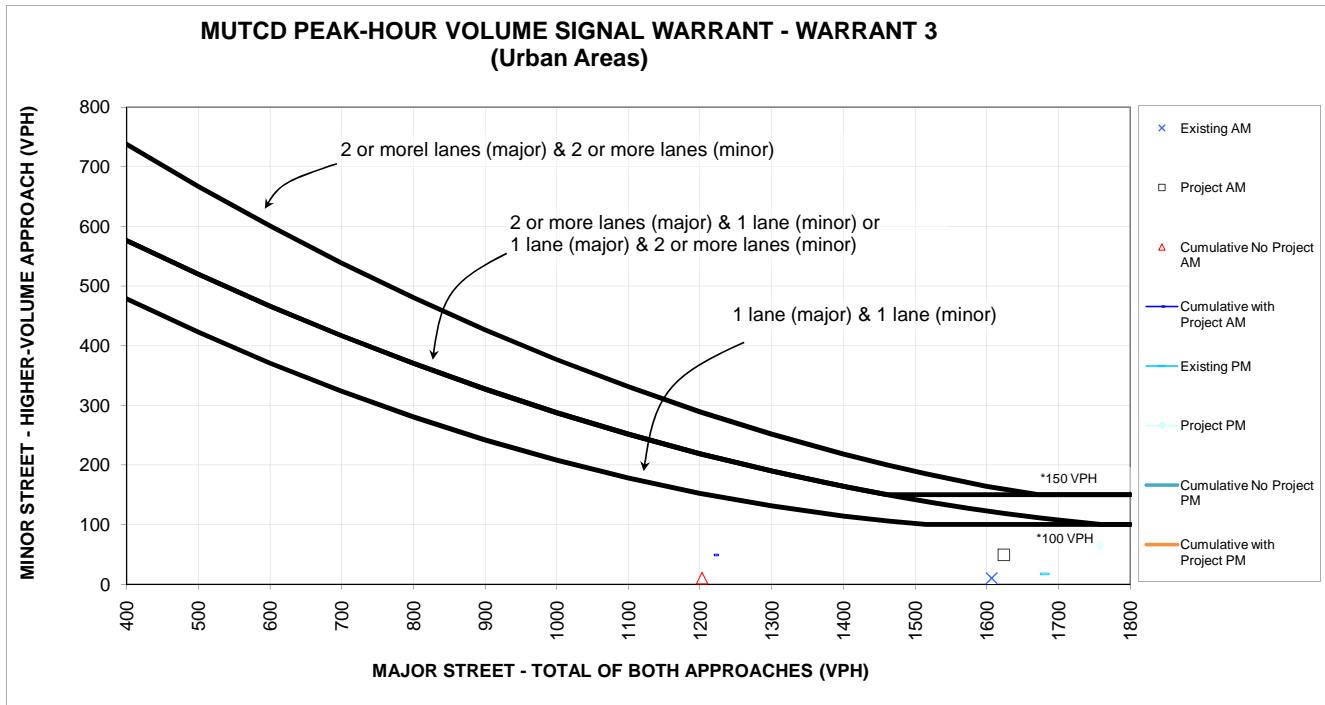
Note: Queue reported is the number of cars per lane.

## **Appendix D**

### **Site Access Analysis**

## Diamond Creek Villas

### 8 . Monterey Road & Project Driveway



Source: Figure 4C-3 of the Manual on Uniform Traffic Control and Devices (MUTCD) 2010 Edition from California Department of Transportation (Caltrans).

\* 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

		AM Peak Hour					
		Approach Lanes	2 or One More	Existing AM	Project AM	Cumulative No Project AM	Cumulative with Project AM
Major Street - Both Approaches	Monterey Road		X	1607	1624	1203	1220
Minor Street - Highest Approach	Project Driveway	X		10	49	10	49
Maximum warrant threshold for minor street volume				100	100	218	213
Difference between warrant threshold & minor street volume				90	51	208	164
		Warrant Met?		No	No	No	No

		PM Peak Hour					
		Approach Lanes	2 or One More	Existing PM	Project PM	Cumulative No Project PM	Cumulative with Project PM
Major Street - Both Approaches	Monterey Road		X	1681	1758	1455	1532
Minor Street - Highest Approach	Project Driveway	X		17	65	17	65
Maximum warrant threshold for minor street volume				100	100	151	100
Difference between warrant threshold & minor street volume				83	35	134	35
		Warrant Met?		No	No	No	No

Monterey/ Project Driveway  
 EBL  
 AM  
 Existing+Project Conditions  
 Avg. Queue Per Lane in Veh= 0.4  
 Percentile = 0.95

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.6434	0.6434	0
0.2837	0.9271	1
0.0626	0.9897	2
0.0092	0.9989	3
0.0010	0.9999	4
0.0001	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Monterey/ Project Driveway  
 NBL  
 AM  
 Existing+Project Conditions  
 Avg. Queue Per Lane in Veh= 0.0  
 Percentile = 0.95

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.9929	0.9929	0
0.0070	1.0000	1
0.0000	1.0000	2
0.0000	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Monterey/ Project Driveway  
 EBL  
 PM  
 Existing+Project Conditions  
 Avg. Queue Per Lane in Veh= 1.3  
 Percentile = 0.95

Monterey/ Project Driveway  
 NBL  
 PM  
 Existing+Project Conditions  
 Avg. Queue Per Lane in Veh= 0.0  
 Percentile = 0.95

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.2775	0.2775	0
0.3557	0.6332	1
0.2280	0.8613	2
0.0974	0.9587	3
0.0312	0.9899	4
0.0080	0.9979	5
0.0017	0.9996	6
0.0003	0.9999	7
0.0001	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45

Individual Probability	Cumulative Probability	Number of Queued Vehicles
0.9544	0.9544	0
0.0445	0.9989	1
0.0010	1.0000	2
0.0000	1.0000	3
0.0000	1.0000	4
0.0000	1.0000	5
0.0000	1.0000	6
0.0000	1.0000	7
0.0000	1.0000	8
0.0000	1.0000	9
0.0000	1.0000	10
0.0000	1.0000	11
0.0000	1.0000	12
0.0000	1.0000	13
0.0000	1.0000	14
0.0000	1.0000	15
0.0000	1.0000	16
0.0000	1.0000	17
0.0000	1.0000	18
0.0000	1.0000	19
0.0000	1.0000	20
0.0000	1.0000	21
0.0000	1.0000	22
0.0000	1.0000	23
0.0000	1.0000	24
0.0000	1.0000	25
0.0000	1.0000	26
0.0000	1.0000	27
0.0000	1.0000	28
0.0000	1.0000	29
0.0000	1.0000	30
0.0000	1.0000	31
0.0000	1.0000	32
0.0000	1.0000	33
0.0000	1.0000	34
0.0000	1.0000	35
0.0000	1.0000	36
0.0000	1.0000	37
0.0000	1.0000	38
0.0000	1.0000	39
0.0000	1.0000	40
0.0000	1.0000	41
0.0000	1.0000	42
0.0000	1.0000	43
0.0000	1.0000	44
0.0000	1.0000	45